152408

From:

Chan, Christina

Sent:

Tuesday, May 03, 2005 5:27 PM

To: Subject: Holleran, Anne; STIC-Biotech/ChemLib RE: RUSH sequence search for 09/977,406

## Please rush. Thanks Chris

Chris Chan
TC 1600 New Hire Training Coordinator and SPE 1644
(571)-272-0841
Remsen, 3E89

-----Original Message-----

From:

Holleran, Anne

Sent:

Tuesday, May 03, 2005 5:04 PM

To:

Chan, Christina

Subject:

RUSH sequence search for 09/977,406

Please approve and forward to STIC the following RUSH sequence search request. This is for an amendment due this biweek. Thanks.

Please search the following sequences for 09/977,406:

oligomer search of SEQ ID NO: 5 (aa) (commercial and interference)

SEQ ID NO: 58 (aa) (commercial and interference)

SEQ ID NO: 59 (aa) (commercial and interference)

SEQ ID NO: 88(aa) (commercial and interference)

SEQ ID NO: 90 (aa) (commercial and interference)

SEQ ID NO: 91 (aa) (commercial and interference)

SEQ ID NO: 92 (aa) (commercial and interference)

These sequences are all related by including all or parts of SEQ ID NO: 5.

Anne Holleran AU: 1642

Tel: (571) 272-0833 RM: Remsen, 3A14

mailbox: Remsen, 3C18

STAFF USE ONLY
Searcher:
Searcher Phone: 2Date Searcher Picked up:
Date Completed:

Searcher Prep/Rev. Time:

Online Time:\_

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NA#:\_\_\_\_ AA#:\_\_\_
Interference:\_\_\_ SPDI:\_\_
S/L:\_\_ Oligomer:\_\_
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Structure#:\_\_\_\_ Text:\_

Inventor:\_\_\_\_ Litigation:\_\_\_

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## ALIGNMENTS

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(PROC-) PROCYON BIOPHARMA INC

Garde ŝ Panchal CJ, Baijal-Gupta M, Fraser J, Kadhim

S

WPI; 2002-471401/50.

New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.

Claim 1; Page 74; 185pp; English.

The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamincroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention

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                                                                                                                                                                                                                                                                                                                         Sequence
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RESULT 4
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     beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                             Human
                                               Cancer; human; PSP94; prostatic inhibin protein;
                                                                                                         30-AUG-2002
                                                                                                                                    AA017966;
                                                                                                                                                              AAO17966 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                            Sequence 16
                                                                                                                                                                                                                                                                                                                                                                   present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 2; Page 76; 185pp; English.
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20-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             benign prostate hyperplasia; cytostatic.
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                                                                          prostate secretory protein of 94 amino acids PSP94 analogue
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15; Conserv
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2001CA-02355334.
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                                                                                                                                                                                                                                                                                                              Length 16;
                                              PIP; HSPI; beta-MSP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach, gastrointestinal, breast, endometrial, and ovarian cancers.
                                                    16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
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20-AUG-2001; 2001CA-02355334.
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                                                              New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
The present invention relates secretory protein of 94 amino
                                      Claim 2;
                                                                                                                     WPI; 2002-471401/50.
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20-AUG-2001; 2001CA-02355334.
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to analogues of the human prostate acids (PSP94, also known as prosta
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Pred. No.
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RESULT 7
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Matches 15
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                                                                                                                                        cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for trepatients with a disease characterized by elevated levels of FSH present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                         New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                   Sequence 18 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-APR-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cancer, human;
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                               Similarity
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       100.0%;
larity 100.0%;
Conservative 0
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100.0%; I
ative 0;
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    Score 15; DE
Pred. No. 2.7
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Pred. No. 2:6
0; Mismatches
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                          DB 5; I
2.7e-10;
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2:6e-10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       amino acids, useful for
                                                                                                                                                                                                                                                                                                                                                                                                                              ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                    adenocarcinoma,
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                                                Length 18;
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                                                                                                                                                                   r treating FSH. The
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RESULT 9 AAO17969

AAO17969 standard; peptide; 19

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30-AUG-2002 AAO17969;

(first entry)

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                                                      Query Match
Best Local S
Matches 15
                                                                                                                                   The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                            Sequence 18
                                                                                                                                                                                                                                                                                                     New human prostate secretory protein of 94 amino acids, useful inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stongastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                                                                                                                                            Claim 2; Page 94; 185pp; English.
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20-AUG-2001;
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                                                       l Similarity
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                        EWOTDNCETCTCYET 15
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                                                                                                             A
                                                       Conservative
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2001CA-02355334.
                                                                   100.0%;
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18
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                                                                   Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               endometrial cancer; ovarian cancer;
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                                                       Mismatches
                                                                   DB 5; 1
2.7e-10;
                                                                                Length 18;
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RESULT 10
AAO17920
ID AAO17
XX AO17
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XX 30-AU
XX Cance
KW Cance
KW beta-
KW beta-
KW beta-
KW betoma
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Best Local S
Matches 15
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                                                                                         Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
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20-AUG-2001;
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                WO200233090-A2
                                           Homo sapiens
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2001CA-02355334.
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                                                                                                                                                                   secretory protein of 94 amino acids
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                                                                          hyperplasia;
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                                                                          cytostatic.
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Pred. No. 2.8
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2.8e-10;
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RESULT 11
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Best Local
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                                                                                                                                                                                                                                           Cancer; human; PSP94; prostatic inhibin protein; PIP; HSP1; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                    Garde S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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            WPI; 2002-471401/50
                                                                                      16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                            Human prostate secretory protein of 94 amino acids PSP94 analogue #10
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20-AUG-2001;
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                                                                                                                                                                                                                               prostate
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                                                              PROCYON BIOPHARMA INC
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                                                                                                                                                                                                                                 hyperplasia; cytostatic.
                                    Baijal-Gupta
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Pred. No. 2.8e-10;
; Mismatches 0;
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                                    Fraser J,
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                                     Kadhim
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RESULT 12
AA017970
ID AA017
XX Cance
KW Cance
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                                    The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinom stomach cancer, breast cancer.
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      or benign prostate hyperplasia and
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Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue;
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                                                                                                                                                                                                                                                                                                                                         Sequence 21 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Garde
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
                                                                                                                                     AAO17923 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-OCT-2001; 2001WO-CA001463.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-APR-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              benign prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-AUG-2002
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                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                     EWOTDNCETCTCYET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 95; 185pp; English.
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Conservative 0; Mismatches
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                                            secretory protein of 94 amino acids PSP94 analogue #12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        secretory protein of 94 amino acids PSP94 analogue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baijal-Gupta M,
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hes 0;
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                                                                                                                                                                                                                                                                                                        DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acids, useful for adenocarcinoma, stomach, ovarian cancers.
                                                                                                                                                                                                                                                                                                      Length 21;
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Search completed: May 4, Job time: 31.3273 secs

2005,

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Best Local :
                                                                                                                                                The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                   New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                       Sequence 22 AA;
                                                                                                                                                                                                                                                                                                       Claim 2; Page 78; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-471401/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic.
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              (PROC-) PROCYON BIOPHARMA INC
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                                                          l Similarity
EWQTDNCETCTCYET
                          EWOTDNCETCTCYET
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                                                          Conservative
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Pred. No.
                                                            Mismatches
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                                                                                          DB 5;
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Minimum DB
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length: 2000000000
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145.592 Million cell updates/sec
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BG
                   US-07-899-535A-1
US-08-460-309-17
US-08-160-309-17
US-08-125-077-17
US-09-949-016-7517
US-09-962-702A-8
US-09-562-702A-8
US-09-562-702A-8
US-09-562-702A-6
US-09-561-709B-7
US-09-961-709B-7
US-09-917-254-6
US-09-917-254-6
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US-09-917-254-7
US-08-461-96A-24
US-08-154-712B-24
US-08-154-712B-24
US-08-154-712B-24
US-09-917-340-57
US-09-917-340-57
US-09-917-340-57
US-09-930-619-199
US-09-030-619-199
US-09-621-976-5440
US-09-513-999C-7986
US-09-513-999C-7986
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              Sequence 1, Appli Sequence 17, Appl Sequence 17, Appli Sequence 7, Appli Sequence 7, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 86, Appli Sequence 86, Appli Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli Sequence 24, Appli Sequence 24, Appli Sequence 24, Appli Sequence 27, Appli Sequence 21, Appli Sequence 57, Appli Sequence 5750, Appli Sequence 5750, Appli Sequence 6750, App
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US-07-899-535A-1
                 Query Match
Best Local Similarity
Matches 15; Conserv
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| 45                | 44                | 43                | 42                | 41                  | 40                  | 39                | 38                | 37                   | 36                  | 35                  | 34                | 33               | 32                | 31               | 30                | 29                | 28                   |  |
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| ũ                 | 33.3              | 33.3              | 33.3              | 33.3                | 33.3                | 33.3              | 33.3              | 33.3                 | 33.3                | 33.3                | 33.3              | 33.3             | 33.3              | 33.3             | 33.3              | 33.3              | 33.3                 |  |
| 716               | 716               | 716               | 689               | 454                 | 400                 | 396               | 392               | 362                  | 316                 | 315                 | 261               | 243              | 243               | 243              | 243               | 231               | 230                  |  |
| N                 | N                 | N                 | 4                 | 4                   | 4                   | 4.                | 4.                | 4.                   | 4.                  | 4.                  | 4.                | N                | N                 | N                | N                 | 4.                | 4                    |  |
| US-08-484-596A-14 | US-08-484-158B-14 | US-08-484-993B-14 | US-09-937-215-2   | US-09-134-000C-5977 | US-09-270-767-46136 | US-09-424-978B-36 | US-09-424-978B-39 | US-09-248-796A-20514 | US-09-543-681A-5873 | US-09-902-540-14527 | US-09-962-357-8   | US-08-125-077-16 | US-08-125-077-15  | US-08-460-309-16 | US-08-460-309-15  | US-09-265-540E-4  | US-09-248-796A-21826 |  |
| Sequence 14, Appl | Sequence 14, Appl | Sequence 14, Appl | Sequence 2, Appli | Sequence 5977, Ap   | 13                  | •                 | Sequence 39, Appl | Sequence 20514, A    | Sequence 5873, Ap   | Sequence 14527, A   | Sequence 8, Appli | •                | Sequence 15, Appl | -                | Sequence 15, Appl | Sequence 4, Appli | Sequence 21826, A    |  |

ALIGNMENTS

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US-07-899-535A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Appli
Patent No. 542801
                                                                                                                                                                                                                              APPLICATION NUMBER: US/07/899
FILING DATE: 16-JUN-1992
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Loud, George A.
REGISTRATION NUMBER: 25,814
REFERENCE/DOCKET NUMBER: %&B-
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-415-0960
                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: 11: MOLECULE TYPE: HYPOTHETICAL:
                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 94 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Garde, Seema
APPLICANT: Panchal, Chandra J.
TITLE OF INVENTION: Pharmaceutical Preparations For
TITLE OF INVENTION: Inhibiting Tumours Associated With
TITLE OF INVENTION: Adenocarcinoma, Stomach Cancer and
NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 2001 Jef.
CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
ZIP: 22202
                                                                                                                                                                                        TELEPHONE: 703-415-0962
TELEFAX: 703-415-0962
TELEX: 24 8614
                                                                                                             LENGTH: 94 amino acids
TYPE: amino acid
STRANDEDNESS: single
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                                                                                               SS: single
linear
                                                             . protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mr. George Loud
100.0%; Score 15; DB 1; 100.0%; Pred. No. 1.9e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Davis Highway, Suite 306
                                                                                                                                                                                                                                                                  S&B-A835
               Length 94;
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Breast Cancer.
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Conservative

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US-09-513-999C-7807
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Matches
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CURRENT FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/122,487
PRIOR FILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 7807
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. 5837496
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Dumas Milne Edwards, J.B. APPLICANT: Duclert, A. APPLICANT: Giordano, J.Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
NAME/KEY: SIGNAL
LOCATION: -20...-1
OTHER INFORMATION: score 9
OTHER INFORMATION: seg VVIFATFVTLCNA/SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'ILE REFERENCE: 59.US2.REG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH: 114
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                          ORRESPONDENCE ADDRESS:
                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                              CITY: San Diego
                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51
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5. 6783961
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                                                                                                                                                                                                                                                                               California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/08460309
                                                                                                                                                                                                                                                                                                      4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                  USA
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Leivo, Ilmo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                             Campbell and Flores
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                                                                                                                                                                                                                                                                                                                                                                                                                      Eva
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100.0%; Pred. No. 2.3e-11;
... Mismatches 0;
                                                                                                                                       US/08/460,309
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 17, Application Upatent No. 5872231
Patent No. 5872231 5840863
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US PCT
FILING DATE: 21-SEP-1994
PRIOR APPLICATION DATA:
THE OT.
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION
                                   REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-
TELECOMMUNICATION INFORMATION:
                                                                          APPLICATION NUMBER: US 07//
APPLICATION NUMBER: US 07//
PILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
NAME: """""
NAME: 1,81
                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                       FILING DATE: 30-JAN-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin TITLE OF INVENTION: Fragments and Uses Thereof NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: US
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 30-JAN-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/472,319
                     TELEPHONE:
                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 22-SE
                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
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San Diego
: California
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Leivo, Ilmo
       (619)
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(619) 535-9001
(619) 535-8949
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                                                                                                                                         US 07/919,951
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                                                      P-LA 9721
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SEQUENCE CHARACTERISTICS:

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US-09-949-016-7517
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US-08-125-077-17
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US-09-949-016-7517
                                 SOFTWARE: PatentIn Ver.
SEQ ID NO 7
LENGTH: 3070
TYPE: PRT
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APPLICANT:
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APPLICANT:
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Patent No. 6812339
                                                                                                                                                                 APPLICANT: WINTERHAGER, ELKE
APPLICANT: REGIDOR, PEDRO
APPLICANT: SCOTTI, SIMONE
TITLE OF INVENTION: METHOD FOR IN VITRO DIAGNOSIS OF ENDOMETRIOSIS
                                                                                                                                                                                                                                                                                                                                        equence 7, Application US/09961403 atent No. 6780594
                                                                                                                                                                                                                                                                                                                                                                            09-961-403-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTMARE: FastSEQ for Windows Version 4.0
ORGANISM: Homo sapiens 09-961-403-7
                                                                                                      CURRENT FILING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 15
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CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
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                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/961,403
                                                                                                                                                            FILE REFERENCE: SCH-1789
                                                                                                                                                                                                                                                                                                   APPLICANT: HE-STUMPP, HOLGER
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PPLICANT: VENTER, J. Craig et al.
TILE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acids
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KRAETZSCHMAR, JOERN
KREFT, BERTHOLT
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100.0%; Prr
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; ORGANISM: Homo sapiens
US-09-562-702A-8
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                                                                       US-09-562-702A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 8
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CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR FILING DATE: 1999-06-15
                                                                                                                      SOFTWARE: PatentIn Ver.
SEQ ID NO 4
LENGTH: 3089
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 4, Application US/09562702A Patent No. 6632790 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: SEQ ID NO 8
Query Match 40.0%; Score 6; DB 4;
Best Local Similarity 100.0%; Pred. No. 42;
Matches 6; Conservative 0; Mismatches
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Best Local 9
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Patent No. 6632790
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Best Local :
                                                                                                                                                                              NUMBER OF SEQ ID NOS:
                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/131,720 PRIOR FILING DATE: 1999-04-30
                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
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                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Laminin 2 and Methods for Its Use FILE REFERENCE: 99-274-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/131,720 PRIOR FILING DATE: 1999-04-30
                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 1999-09-24
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Yurchenco,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Yurchenco,
                                                                                       ORGANISM: Homo sapiens
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; Pred. No. 42;
0; Mismatches
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o. 42;
                                Length 3089;
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; TYPE: PRT ; ORGANISM: Homo sapiens US-09-562-702A-6
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; ORGANISM: Homo sapiens
US-09-562-702A-2
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                                                           Matches
                                                                             Query Match
Best Local 9
                                                                                                                                                                                                                SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:

APPLICANT: Yurchenco, Peter

TITLE OF INVENTION: Laminin 2 and Methods for Its Use

FILE REFERENCE: 99-274-B
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LENGTH: 3110
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Best Local Similarity
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                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR PPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR FILING DATE: 1999-04-30
NUMBER OF CEC IN NC 1999-04-30
                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 32
                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Ver. 2.0
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NUMBER OF SEQ ID NOS: 32
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PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/155,945 PRIOR FILING DATE: 1999-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Laminin 2 and Methods for Its Use
FILE REFERENCE: 99-274-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Yurchenco,
                                                                                                                                                                                              ENGTH: 3110
                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   389 NCETCT 394
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                                                         6; Conservative
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NCETCT 11
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100.0%; Pi
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                                                     40.0%; Score 6; DB / 100.0%; Pred. No. 43, tive 0; Mismatches
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RESULT 13
US-09-949-016-5937
; Sequence 5937, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
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; ORGANISM: Homo Sapiens
US-09-917-254-86
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                                                                                                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 1997-10-10
NUMBER OF SEQ ID NOS: 13
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 7
                                                                                                                                                                                                                     Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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Patent No. 6682911
                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Prognostic Classification of Breast Cancer FILE REFERENCE: B0801/7224(JRV)
CURRENT APPLICATION NUMBER: US/09/917,254
CURRENT FILING DATE: 2001-07-27
PRIOR APPLICATION NUMBER: US 60/222,093
PRIOR FILING DATE: 2000-07-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Brunken, William
TITLE OF INVENTION: LAMINING AND USES THEREOF
FILE REFERENCE: 10287-660001
CURRENT APPLICATION NUMBER: US/09/561,709B
CURRENT FILING DATE: 2000-05-01
PRIOR APPLICATION NUMBER: US 09/168,949
PRIOR FILING DATE: 1998-10-09
PRIOR APPLICATION NUMBER: US 60/061,609
PRIOR APPLICATION NUMBER: US 60/061,609
                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 102
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ORGANISM: Homo sapiens
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Olson, Pamela
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b; Pred. No. 43;
0; Mismatches
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o. 43;
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APPLICANT: VENTER,

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PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
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Best Local
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-09-949-016-5937
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CURRENT FILING DATE: 2000-04-14
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APPLICANT: Leivo, IInc
TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin
TITLE OF INVENTION: Fragments and Uses Thereof
NUMBER OF SEQUENCES: 23
                                                                                            APPLICATION NUMBER: US 07/472,319
FILING DATE: 30-JAN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/919,951
FILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10730
FILING DATE: 21-SEP-1994
PRIOR APPLICATION UNDERS IN CO./172 210
                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
TELEPHONE: (619) 535-9001
                                 NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA 9721
                                                                                                                                                                                                                                                                                                                                        FILING DATE:
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
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: California
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H: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
H: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
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100.0%; Pred. No. 43
Live 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                          Version
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Best Local Similarity
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US-08-125-077-4
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                                   Matches
                                                 Query Match
Best Local Similarity
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Patent No. 5872231 5840863
                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/08/125,077

APPLICATION NUMBER: US/08/125,077

FILING DATE: 22-SEP-1993

CLASSIFICATION: 435

PRIOR APPLICATION DATA:
APPLICATION UNMBER: US PCT/US 94/10730

FILING DATE: 21-SEP-1994

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/472,319

FILING DATE: 30-JAN-1990

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/919,951

FILING DATE: 27-JUL-1992

ATTORNEY/AGENT INFORMATION:
NAME: CARNON INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 3111 amino acids
                                                                                                                                                                                TELEFAX: (619) 535-8949 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                          NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 92122
COMPUTER READABLE FORM:
TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Engvall, Eva
APPLICANT: Leivo, Ilmo
TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin
TITLE OF INVENTION: Fragments and Uses Thereof
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 43/v -- STREET: San Diego
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
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                                                                                                                   TOPOLOGY:
                                                                                                                                              LENGTH:
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                                 Conservative
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                                                                                                                   linear
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100.0%; Pred. No.
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                                                  Score 6; ; Pred. No.
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                                 Gaps
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389 NCETCT 394

Search completed: May 4, 2005, 14:37:21 Job time : 8.69091 secs

Copyright

GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd

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OM protein - protein search, using sw model
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Maximum DB
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Perfect score:
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/cgn2_6/ptodata/1/pubpaa/VS08_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US09A_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US09A_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
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/cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
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298.385 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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| 15                | 15                | 15                | 15                | 15                | 15                | 15                | 15                | 15                | 15                | 15                | 15              | 15                | Score                    |
| 100.0             | 100.0             | 100.0             | 100.0             | 100.0             | 100.0             | 100.0             | 100.0             | 100.0             | 100.0             | 100.0             | 100.0           | 100.0             | Query<br>Match Length DB |
| 20                | 20                | 19                | 19                | 18                | 18                | 17                | 17                | 16                | 16                | 15                | 15              | 15                | ength I                  |
| 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 17                | 14              | 10                | ₩                        |
| US-09-977-406A-63 | US-09-977-406A-14 | US-09-977-406A-62 | US-09-977-406A-13 | US-09-977-406A-61 | US-09-977-406A-12 | US-09-977-406A-60 | US-09-977-406A-11 | US-09-977-406A-59 | US-09-977-406A-10 | US-10-857-358-5   | US-10-291-360-5 | US-09-977-406A-5  | ID                       |
|                   | 14                | 62,               | •                 | 61,               | 12,               | 60,               | •                 | Sequence 59, Appl | Sequence 10, Appl | Sequence 5, Appli |                 | Sequence 5, Appli | Description              |

| 45             | 44   | 43            | 42      | 41      | 40      | 39             | 38      | 37             | 36      | 35     | 34      | 33          | 32             | 31            | 30            | 29             | 28            | 27             | 26           | 25             | 24             | 23             | 22            | 21             | 20             |               | 18            | 17      | 16                | 15     |   |
|----------------|------|---------------|---------|---------|---------|----------------|---------|----------------|---------|--------|---------|-------------|----------------|---------------|---------------|----------------|---------------|----------------|--------------|----------------|----------------|----------------|---------------|----------------|----------------|---------------|---------------|---------|-------------------|--------|---|
| 15             | 15   | 15            | 15      | 15      | 15      | 15             | 15      | 15             | 15      | 15     | 15      | 15          | 15             | 15            | 15            | 15             | 15            | 15             | 15           | 15             | 15             | 15             | 15            | 15             | 15             | 15            | 15            | 15      | 15                | 15     |   |
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| 36             | 35   | 35            | 34      | 34      | 33      | ω<br>ü         | 32      | 32             | 31      | 31     | 30      | 30          | 30             | 29            | 29            | 28             | 28            | 27             | 27           | 26             | 26             | 25             | 25            | 24             | 24             | 23            | 23            | 22      | 22                | 21     |   |
| 10             | 10   | 10            | 10      | 10      | 10      | 10             | 10      | 10             | 10      | 10     | 10      | 10          | 10             | 10            | 10            | 10             | 10            | 10             | 10           | 10             | 10             | 10             | 10            | 10             | 10             | 10            | 10            | 10      | 10                | 10     |   |
| -09-977-406A-3 | 77-  | -09-977-406A- | -406A-7 | 7-406A- | -406A-7 | -09-977-406A-2 | -406A-7 | -09-977-406A-2 | -406A-7 | -406A- | -09-977 | -977-406A-7 | -09-977-406A-2 | -09-977-406A- | -09-977-406A- | -09-977-406A-7 | -09-977-406A- | -09-977-406A-7 | 9-977-406A-2 | -09-977-406A-6 | -09-977-406A-2 | -09-977-406A-6 | -09-977-406A- | -09-977-406A-6 | -09-977-406A-1 | -09-977-406A- | -09-977-406A- | -406A-6 | US-09-977-406A-16 | -406A- |   |
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|                |      |               |         |         |         |                |         |                |         |        |         |             |                |               |               | 71,            |               |                |              |                |                |                |               |                |                |               |               |         |                   |        |   |
| App1           | App1 | Appl          | App1    | Appl    | Appl    | App1           | App1    | Appl           | Appl    | Appl   | Appl    | App1        | App1           | App1          | Appl          | Appl           | App1          | Appl           | App1         | Appl           | App1           | Appl           | Appl          | Appl           | Appl           | Appl          | App1          | Appl    | App1              | App1   |   |

## ALIGNMENTS

US-09-977-406A-5

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RESULT 2
US-10-291-360-5
; Sequence 5, Application US/10291360
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                                                                                                                                                                                                                                                                                                           ; FEATURE:
; OTHER INFORMATION: PCK3145 (polypeptide 31-45)
US-09-977-406A-5
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SEQ ID NO 5
LENGTH: 15
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5, Application US/09977406A

Publication No. US20030170220A1

GENERAL INFORMATION:

APPLICANT: PROCYON BIOPHARMA INC.

TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
                                                                                                                                                  1 EWQTDNCETCTCYET 15
                                                                                                                       EWQTDNCETCTCYET 15
                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                     100.0%; Score 15; DB 10; 100.0%; Pred. No. 1.1e-10;
                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                             Length 15;
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                                                                                                                                                Sequence 10, Application US/09977406A Publication No. US20030170220A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PUBLICATION:
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PSP-94: Use for Treatment of Hypercalcemia and Bone metastasis
TITLE OF ENCE: 06508-153
TO /10/857.358
                                                                                                                                                                                                                                                                                                                                                                                       Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 5
LENGTH: 15
                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn version 3.1
SEQ ID NO 5
LENGTH: 15
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 5, Application US/10857358 Publication No. US20050026833A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/857,358
CURRENT FILING DATE: 2004-06-01
PRIOR APPLICATION NUMBER: CA 2,361,736
PRIOR FILING DATE: 2001-11-08
PRIOR APPLICATION NUMBER: US 10/291,360
PRIOR FILING DATE: 2002-11-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: CA 2,361,736 PRIOR FILING DATE: 2001-11-08 NUMBER OF SEQ ID NOS: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: PSP-94: Use for Treatment of Hypercalcemia FILE REFERENCE: 06508-051-US-02 CURRENT APPLICATION NUMBER: US/10/291,360 CURRENT FILING DATE: 2002-11-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: PCK3145 (polypeptide 31-45)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: PCK3145 (polypeptide 31-45)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: PROCYON BIOPHARMA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
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Pred. No.
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                      Length 15;
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RESULT 6
US-09-977-406A-11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-977-406A-59
SOFTWARE: PatentIn version 3.1
SEQ ID NO 11
LENGTH: 17
                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                     Sequence 11, Appropriate Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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LENGTH: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn version 3.1 SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 59, Ap
Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Best Local :
                                                                  CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15 PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR FILING DATE: 2000-10-16 PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR FILING DATE: 2001-08-20
                                                     NUMBER OF SEQ ID NOS: 92
                                                                                                                                                                               APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
FILE REFERENCE: 06508-030-US-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 92
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR TILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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CURRENT FILING DATE: 2001-10-15
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence

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                                                        ; OTHER INFORMATION: Polypeptide US-09-977-406A-12
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US-09-977-406A-60.
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PRIOR PILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: PATENTIN VERSION 3.1
SEQ ID NO 12
Query Match
Best Local Similarity
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SEQ ID NO 60
LENGTH: 17
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PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/977,406A
                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS FILE REFERENCE: 06508-030-US-03
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ORGANISM: Artificial Sequence
                                                                                                         ORGANISM: Artificial Sequence
                                                                                                                                   LENGTH: 18
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No. US20030170220A1
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Pred. No.
Score 15;
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                                                                      derived from rHuPSP94 sequence
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Pred. No.
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DB 10;
1.3e-10;
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FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: Patentin version 3.1
SEQ ID NO 61
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US-09-977-406A-13
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US-09-977-406A-61
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Best Local Similarity
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Publication No. US20030170220A1
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SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: CA
PRIOR FILING DATE: 2001-08-20
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ORGANISM: Artificial Sequence
FEATURE:
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ORGANISM: Artificial Sequence
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Pred. No. 1.3e-10;
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RESULT 13
US-09-977-406A-63
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US-09-977-406A-14
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                                          GENERAL INFORMATION:
                                                            Sequence 63, Application US/09977406A Publication No. US20030170220A1
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SEQ ID NO 14
LENGTH: 20
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APPLICANT: PROCYON BIOPHARMA INC.

TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
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        APPLICANT: PROCYON I
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Publication No.
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LENGTH: 19
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Publication No.
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APPLICANT: PROCYON BIOPHARMA INC.
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PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
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PRIOR FILING DATE: 2000-10-16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/977,406A
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                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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  PROCYON BIOPHARMA INC.
VENTION: PHARMACEUTICAL
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No. US20030170220A1
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US-09-977-406A-64
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US-09-977-406A-15
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                                                                                                                                                                        Sequence 64, Applica Publication No. US20 GENERAL INFORMATION:
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 63
                                                                                                              APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
FILE REFERENCE: 06508-030-US-03
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
                                                                           CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15
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PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
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CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
FILE REFERENCE: 06508-030-US-03
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PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT ORGANISM: Artificial Sequence
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No. US20030170220A1
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Copyright (c) 1993 - 2005 Compugen Ltd.
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|   | 397                | 396                | 394                | 393                | 393                | 393                | 393                | 393                | 391             | 390                | 390                | 390                | 374                | 374                | 366                | 363             |
|   | N                  | N                  | N                  | N                  | Ŋ                  | N                  | N                  | N                  | N               | N                  | N                  | N                  | N                  | N                  | N                  | ۲               |
|   | S66352             | T10710             | T06180             | JQ0410             | C86155             | JN0131             | S46538             | S38875             | T43318          | G84785             | S49491             | S46540             | C97058             | S41758             | 866351             | C55973          |
|   |                    |                    |                    |                    |                    |                    |                    |                    |                 |                    |                    |                    |                    |                    |                    |                 |
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## ALIGNMENTS

|   | ALIGNMENTS   |
|---|--|
|   | RESULT 1 A34567  |
|   | beta-microseminoprotein precursor - human<br>N;Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma pro                  |
|   | C:Species: Homo sapiens (man) C:Date: 13-Jul-1990 #segmence revision 13-Jul-1990 #text change 09-Jul-2004  |
|   | C;Accession: A34567; A26451; A29777; A30984; A60673; S16238; I52682  |
|   |  |
|   | A; Title: Cloning and nucleotide sequence analysis of the human beta-microseminoprotein go<br>A: Reference number: A34567: MUID:90211299: PMID:2322265 |
|   | A;Accession: A34567  |
|   | A;Status: not compared with conceptual translation   |
|   | A; Molecule Cype: UNA<br>A; Residues: 1-114 GRE>   |
|   | A; Cross-references: UNIPROT: P08118; GB: M34376; NID: g514370; PIDN: AAA59871.1; PID: g514372   |
| • | DNA 6, 23-29, 1987   |
|   | A;Title: Molecular cloning and sequence of the cDNA for a 94-amino-acid seminal plasma p:  |
|   | A; Accession: A26451   |
|   | A; Molecule type: mRNA<br>A.Residnes 1114 (MRT)  |
|   | A;Cross-references: GB:M15885; NID:g338414; PIDN:AAA36635.1; PID:g338415   |
|   | R;AK1yama, K.; Yoshloka, Y.; Schmld, K.; Offiner, G.D.; Troxler, R.F.; Tsuda, R.; Hara, M<br>Biochim Biochiva Acta 870 188,204 1985                    |
|   | A; Title: The amino acid sequence of human beta-microseminoprotein.  |
|   | A;Reference number: A29777; MUID:85199974; PMID:3995056 A:Accession: A29777  |
|   | A; Molecule type: protein  |
|   | A; Residues: 21-58, 'PT', 61-113 <aki></aki>   |
|   | k;Seidan, N.G.; Arbatti, N.J.; Kochemont, J.; Sheth, A.K.; Chietten, M. FEBS Lett. 175, 349-355, 1984  |
|   | A;Title: Complete amino acid sequence of human seminal plasma beta-inhibin. Prediction of A:Reference number: Algast:MITTO:85004133. PMTD:6434350      |
|   | A; Accession: A30984   |
|   | A;Molecule type: protein A:Residues: 21-112,'G',114 <sei></sei>  |
| • | R.Weiber, H.; Andersson, C.; Murne, A.; Rannevik, G.; Lindstroem, C.; Lilja, H.; Fernlund  |
|   | A; Title: Beta microseminoprotein is not a prostate-specific protein.  |
|   | A60673; MUID:90379237; PMID:2205099  |
|   | A; Molecule type: protein  |
|   | A; Residues: 21, 'X', 23-34 <wei></wei>  |
|   | R.NOJer S. Mbiray M. Chretian M  |
|   | Biochim, Biophys. Acta 1889, 247-249, 1991   |
|   |  |
|   | A;Reference number: S16237; MUID:91274357; PMID:2054385  |

A; Accession: S16238 A; Molecule type: DNA

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unknown protein [imported] - Arabidopsis thaliana (Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-J. C;Accession: B96744 R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S. Chin, C.W.; Chung, M.K.; Conn. L.; Conway, A.B.; Conway, A.R.; Crea ansen, N.F.; Hughes, B.; Huizar, L. Nature 408, 816-820, 2000 A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; lat, J.; Liu, Y.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Title: Sequencing the gene encoding Desulforibrio desulfuricans A;Reference number: JC7094; MUID:99400423; PMID:10471375 A;Accession: JC7094
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A; Residues: 1-326 < SAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R; Saraiva, L.M.; da Costa, P.N.; LeGall, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Date: 03-Dec-1999
C;Accession: JC7094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nine-heme cytochrome c - Desulfovibrio desulfuricans
C;Species: Desulfovibrio desulfuricans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:S67815; NID:g460568; PIDN:AAB29732.1; PID:g460569 C;Comment: This protein is a component of seminal plasma as well as secretory fluids fro C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL:X57928; NID:g35760; PIDN:CAA41002.1; PID:g825707 A;Note: the authors translated the codon ACT for residue 54 as Trp R;Liu, A.Y.; Bradner, R.C.; Vessella, R.L. Cancer Lett. 74, 91-99, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Residues: 1-114 <NOL>
A;Cross-references: EMB
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A; Residues: 1-114 < RES>
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';1-20/Domain: signal sequence #status predicted
';21-114/Product: seminal plasma protein #status
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Best Local
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Pred. No.
                                                                                               C.J.; Federspiel, N.A.; Kaul, S.; W Conway, A.B.; Conway, A.R.; Creasy,
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                                                                                               S.; White, C
reasy, T.H.;
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                      Khaykin, E.; Kim, C
Maiti, R.; Marziali
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C.Accession: JN0613
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R;Cociancich, S.; Goyffon, M.; Bontems, F.; Bulet, P.; Bouet, F.; M.; Cociancich, S.; Goyffon, M.; Bontems, F.; Bulet, P.; Bouet, F.; M.; Blochem. Biophys. Res. Commun. 194, 17-22, 1993
Blochem. Biophys. Res. Commun. 194, 17-22, 1993
A;Title: Purification and characterization of a scorpion defensin, A;Title: Purification and Characterization of a scorpion defension, A;Title: Purification and Characterization of a scorpion defension, A;Title: Purification and Characterization of a scorpion defension, A;Title: Purification and Characterization and Characterization of a scorpion defension, A;Title: Purification and Characterization and Characterization
                                                                                                                                                                                                                                                                                                                                                                            defensin 4K - scorpion (Leiurus quinquestriatus)
N,Alternate names: antibacterial 4K peptide
C;Species: Leiurus quinquestriatus hebraeus
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 09-Jul-2004
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   A;Cross-references: UNIPROT:P41965
A;Note: this protein is similar to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Introns: 46/1; 96/1; 124/3; 165/1; 223/3; 282/3; 340/3; 381/1; 485/3; 516/2; 549/1; 624
C;Superfamily: Yeast 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase; 1-phosphatosphodiesterase domain Y homology
osphodiesterase domain Y homology
F;338-487/Domain: 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase domain X homo
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RyWohldmann, P., Beck, C.
submitted to the EMBL Data Library, September 1997
submitted to the sequence of C. elegans cosmid K10F12.
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C;Species: CaenorhabdItis elegans
C;Date: 29-Oct_1999 #sequence_revision 29-Oct-1999 #text_change 28-Jul-2000
                                                                                                                                                          A; Accession: JN0613
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A; Map position:
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                                                                           Residues: 1-38
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@ N
   and insect defensins
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C;Species:
C;Date: 19-
                                                      R;Gong, Z.; Hew, C.L.
Biochim. Biophys. Acta 126
A;Title: Several splicing
                                                                                                                   N;Alternate names: insulin enhancer-binding protein isl-2a; islet-2a protein C;Species: Oncorhynchus tschawytscha (chinook salmon) C;Date: 14-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 15-Oct-1999 C;Accession: S52089
                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:Q39465; EMBL:X85252; NID:g1808591; PIDN:CAA59508.1; PID:g73:C;Superfamily: methionine adenosyltransferaseC;Keywords: S-adenosylmethionine; transferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N;Alternate names: S-adenosylmetnionine byninet
C;Species: Cicer arietinum (chickpea, garbanzo)
C;Date: 08-Jul-1995 #sequence_revision 21-Jul-1
                                   Biochim. Biophys. Acta 1260, 349-354, 1995
A;Title: Several splicing variants of isl-1 like genes in
A;Reference number: S52089; MUID:95178560; PMID:7873614
                                                                                                                                                                                                                                                                                                                                            S
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R;Cervantes, E.
submitted to the EMBL Data Library, March 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Title: A novel insect defensin mediates the inducible antibacterial activity in larvae A;Reference number: S27242; MUID:93049356; PMID:1425705
A;Accession: S27242
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A; Residues: 1-83 < CER>
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A; Accession: S53116
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Eur. J. Biochem. 209, 977-984, 1992
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                                                                                                                                                                                                   transcription factor isl-2a (clone S3) - chinook salmon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  methionine adenosyltransferase (EC 2.5.1.6) - chickpea N,Alternate names: S-adenosylmethionine synthetase
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                       Accession: S52089
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Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
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                                                                                                                 R;Himmelreich, R.; Hilbert, H.; Plagens, H.; Pirkl, E.; Li, Nucleic Acids Res. 24, 4420-4449, 1996
A;Tile: Complete sequence analysis of the genome of the bac A;Reference number: S73327; MUID:97105885; PMID:8948633
A; Cross-references:
A; Note: the nucleot:
                                                                                                                                                                                                 C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 C;Accession: S73864
                                     A; Molecule type: DNA
A; Residues: 1-119 <HIM>
                                                                                                                                                                                                                                         C;Species: Mycoplasma
A;Variety: ATCC 29342
                                                                                                                                                                                                                                                                                                      S73864
                                                                         A;Status: preliminary; nucleic acid sequence not shown; translation not
                                                                                                  A;Accession: S73864
                                                                                                                                                                                                                                                                               hypothetical protein H10_orf119 - Mycoplasma pneumoniae (strain ATCC 29342)
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nucleotide sequence

UNIPROT: P75480;

EMBL:AE000052; GB:U00089; NID:g1674223; PIDN:AAB96186 submitted to the EMBL Data Library, November 1996

pneumoniae

#text\_change 09-Jul-2004

B.C.; Herrmann,

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bacterium

Mycoplasma pneumoniae

shown

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A;Cross-references: UNIPROT:P25142; EMBL:X57932; NID:g38094; A;Note: the authors translated the codon ACT for residue 54 a R;Nolet, S; St-Louis, D.; Mbikay, M.; Chretien, M. Genomics 9, 775-777, 1991
A;Title: Rapid evolution of prostatic protein PSP-94 suggeste
                                                                                                                                                                                                                                                                                                                                                                                                                                          seminal plasma protein PSP-94 precursor - rhesus macaque N;Alternate names: prostatic secretory protein PSP94 C;Species: Macaca mulatta (rhesus macaque) C;Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 09-Jul-2004 C;Accession: S16237; A54663 R;Nolet, S.; Mbikay, M.; Chretien, M. Biochin. Biophys. Acta 1089, 247-249, 1991 Biochin. Biophys. Acta 1089, 247-249, 1991 A;Title: Prostatic secretory protein PSP(94): gene organization and promotes A;Reference number: S16237; MUID:91274357; PMID:2054385 A;Accession: S16237
                                                                                                                                                                                                                                                                 A;Reference number: A54663; MUID:91244325; PMID:2037304
A;Accession: A54663
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                                                                                                                                                             A;Introns: 1/3; 37/1; 72/2
C;Superfamily: seminal plasma protein
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                                                                                                                                              F;1-20/Domain: signal sequence #status predicted
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A; Residues: 1-114 < NOL>
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ansen, N.F.; Hughes, B.; Huizar, L.

Nature 408, 816-820, 2000

A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.;

C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.;

Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.

A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.

ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A;Title: Sequence and analysis of chromosome 1 of the plant Arabidop
                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-167 <STO>
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A;Accession: C86241
                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Species: Arabidopsis thaliana (mouse-C;Date: 02-Mar-2001 #sequence_revision
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A;Reference number: A64720; MUID:97426617; PMID:9278503
A;Accession: G65019
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G65019
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C;Accession:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Status: preliminary; nucleic acid sequence not
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                                                                                                                                                                                                                                                                                                                                                                                                            (;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, (Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Residues: 1-130 <BLAT>
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Best Local S
Matches 5
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Best Local :
                                                                                                                                                              Genetics:
                                                                                                                                                                          Cross-references: UNIPROT:Q9SAC5; GB:AE005172; NID:g4874271; PIDN:AAD31336.1;
                                                                                                                                                                                                                               Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Accession: C86241
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cross-references: UNIPROT:P76548; GB:AE000332; GB:U00096; NID:g1788789; PIDN:AAC75501 Experimental source: strain K-12, substrain MG1655
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                          TCYET 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                        33.3%; bu
/ 100.0%; Pr
/ 1776 0;
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0; Mismatches
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                                                                                                                                                                                                                                                                                             ; Southwick, A.M.; Sun, H.; Tallon, ; Davis, R.W.
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Maiti, R.; Marziali
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                   O, K.; Okumura, S.; S
DNA Res. 3, 109-136,
A;Title: Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis
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RESULT 15
$76790
hypothetical protein - Synechocystis sp. (strain PCC 6803)
hypothetical protein - Synechocystis sp.
C.Species: Synechocystis sp.
A; Variety: PCC 6803
A; Variety: PCC 6803
C.Date: 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004
C.Date: 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004
C.C.Cession: $76790
R; Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; l
R; Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Watanabe, A.; Yamad.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
A81679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; Hickey, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, G.; Salzberg, Nucleic Acids Res. 8, 1397-1406, 2000
A;Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39.
A;Reference number: A81500; MUID:20150255; PMID:10684935
A;Accession: A81679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           conserved hypothetical protein TC0662 [imported] - Chlamydia muridarum (strain Nigg) C;Species: Chlamydia muridarum, Chlamydia trachomatis MoPn C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata DNA Res. 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium A;Reference number: AB1807; MUID:21595285; PMID:11759840
A;Accession: AC2316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Residues: 1-210 <KUR>
A;Cross-references: UNIPROT:Q8YPV8; GB:BA000019; PIDN:BAB75781.1; PID:g17133217;
A;Experimental source: strain PCC 7120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Cross-references: UNIPROT: Q9PK11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Status: preliminary
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A;Note: Nostoc sp. strain PCC 7120
C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004
C;Accession: AC2316
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Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.;
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red. No. 51;
Mismatches
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M.; Tabata, S.
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ato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miyajima, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yan

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A;Reference number: S74322; MUID:97061201; PMID:8905231

A;Reference nucleic acid sequence not shown; translation not shown

A;Status: nucleic acid sequence not shown; translation not shown

A;Molecule type: DNA

A;Residues: 1-25 < KAND

A;Cross-references: UNIPROT:P74594; EMBL:D90916; GB:AB001339; NID:g1653715; PIDN:BAA1870

A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June 1996

C;Genetics:
A;Start codon: GTG
C;Superfamily: fructosamine kinase

Query Match
Best Local Similarity 100.0%; Pred. No. 67;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 | | | | | | |
Db 132 WQTDN 136

Search completed: May 4, 2005, 14:34:53

Job time: 5.4 secs
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Result
No.
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Maximum DB seq length: 2000000000
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Perfect score:
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    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Query
Match
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1: uniprot_sprot:*
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   GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
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Q70H34
Q9J5A0
LMA2_HUMAN
DEF4_LHMAU
DEF4_LEIQH
DEFFI_AESCY
             Q8BU77
Q42169
Q42169
Q9JH97
Q854B7
Q22079
MSMB_MACMU
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Q8FCX2
Q6R5C3
DEF1_DERVA
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5 caenorhabdi
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|      | SEQUENCE FROM N. TISSUE=Prostate; MEDLINE=94115955 Liu A.Y., Bradne | BO A HELDE   | WCE FROM TE-9021 C.B., C.B., and and seminop   | WCE FROME=9127. S., Mb. satic | SEQUENCE FROM N.A SEQUENCE FROM N.A MEDLINE=87161231; Molet Paradis G., Dube Chretien M.; "Molecular Clonin seminal plasma pronum 6:23-29(1987)   | HUMAN  MSMB HUMAN  F08118; P11999; Q1  O1-AUG-1988 (Rel.  O1-AUG-1988 (Rel.  O5-JUL-2004 (Rel.  D5-JUL-2004 (Rel.  Beta-microseminopy  protein) (Prostate beta-inhibin) (Imm  Name=MSMB; Synonym  Homo sapiens (Huma  Bukaryota; Metazoa  Mammalia; Eutheria  NCBI_TaxiD=9606;   |             | រ ហ ហ ហ ហ ហ ហ ហ ហ ហ ហ ហ ហ ហ ហ  |
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|      | ubMed=7<br>.C., Ve  | ROM N.A. 073664; PubMed=2590; M., Lindstroem C., 1 cloning of a small oprotein, PSP94 or 1 s in non-genital ti iophys. Res. Commun | PubMed=23<br>Y., Kwok<br>otide seq<br>gene.";<br>Res. Comm   | PubMed=2 M., Chret Dry prote monkey Acta 108  | ubMed=<br>, Four<br>Y., Tr<br>and se  | TANDARD; (013155; Q9U( 103155; Q9U( 103, Creat. 104, Last ! 104, Last ! 105, Last ! 106, Creat. 108, Creat.  | 7           | 119<br>127<br>130<br>131<br>137<br>137<br>237<br>137<br>249<br>264<br>264<br>264<br>264<br>264<br>264<br>264<br>264<br>264<br>264  |
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| 6.00 | 0.1   | , Abrahamsson P<br>protein, known<br>oin, and demonst  | sis of the human<br>4-1190(1990).  | =10.1016/0167-47;<br>ene organization   | annet S., Chapde.<br>Izure C., Seidah I<br>CDNA for a 94-ar   | 0 7 E 60   | NTS         |  |
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MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

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RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

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RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

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                                                              TISSUE=Semen;
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cell line (KLE).";
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Clarke M.W.;
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EMBL; M34376; AAA59871.1; JOII EMBL; M34373; AAA59871.1; JOII EMBL; M34374; AAA59871.1; JOII EMBL; M34375; AAA59871.1; JOII EMBL; M34375; AAA59871.1; JOII EMBL; K57928; CAA41002.1; JOII EMBL; K57929; CAA41002.1; JOII EMBL; X57930; CAA41002.1; JOII EMBL; X57930; CAA41002.1; JOII EMBL; X57931; CAA41002.1; JOII EMBL; X57931; CAA41002.1; JOII EMBL; X57931; AAB29732.1; JOII EMBL; X57931; AAB37355.1; LEMBL; U78976; AAB37355.1; LEMBL; U78976; AAB37355.1; LEMBL; AC005287; AAB37355.1; LEMBL; AAB373557, LEMBL; AAB373557, LEMBL; AAB373557, LEMBL; AAB373557, LEMBL; AAB373557, LEMBL; AA
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GC; GC:0005634; C:nucleus; TAS.
InterPro; IPR008735; PSP94.
Pfam; PF05825; PSP94; 1
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SEQUENCE OF 21-32.

MEDLINE=21648993; PubMed=11788998;

DOI=10.1002/1615-9861(200201)2:14112::AID-PROT112>3.3.CO;2-E;

DOI=10.1002/1615-9861 Tagesson C., Lindahl M.;

Ghafouri B., Stahlbom B., Tagesson C., Lindahl M.;

Ghafouri Amerified proteins in human nasal lavage fluid from n
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genew; HGNC:7372;
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Proteomics 2:112-120(2002).
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TISSUE SPECIFICITY: Strongly expressed in prostate, liver, kid breast and penis. Also expressed in pancreas, esophagus, stome deodenum, colon, trachea, lung, salivary glands and fallopian tube. PSP94 is expressed in lung and breast, whereas PSP97 is found in kidney and bladder.

MISCELLANEOUS: Specific receptors for this protein are found c spermatozoa and in the prostate.

SIMILARITY: Belongs to the beta-microseminoprotein family.

CAUTION: Was originally thought to inhibit the secretion of FS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pituitary cells.
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AJ133356;
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05-JUL-2004 (Rel. 44, Last annotation update)
Beta-microseminoprotein precursor (Prostate secreted seminal plasma protein) (Prostate secretory protein PSP94) (PSP-94).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (S or send an email to license@isb-sib.ch).
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-i- SUBCELLULAR LOCATION: Secreted.
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MEDLINE=97316893; PubMed=9174167;
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Papio anubis (Olive baboon).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - Buropean Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way ified and this statement is not removed. Usage by and for commercial ities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBCELLULAR LOCATION: Secreted. Sperm surface (By similarity). SIMILARITY: Belongs to the beta-microseminoprotein family.
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Pro; IPR008735; PSP94.
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    Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H., Arakawa T., Bono H., Carninci P., Pukuda S., Fukunishi Y., Furuno Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiracka T., Hori F. Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H., Kasukawa T., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C., Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno Okazaki Y., Okido T., Owa C., Salto H., Saito R., Sakai C., Sakai Sano H., Sasaki D., Shibata X., Shibata Y., Shinagawa A., Shiraki Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshizaki Y., Muramatsu M., Hayashizaki Y.,
                                                                                                                                                                                                                                                                                                                                            MEDLINB=20530913; PubMed=11076861; DOI=10.1101/gr.152600; Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsunoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.; "RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer."; Genome Res. 10:1757-1771(2000).
                                        Muramatsu
Submitted
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Mus musculus 10 day old male pancreas cDNA, RIKEN full-length enriched
library, clone:1810020E01 product:hypothetical protein, full insert
sequence (RIKEN cDNA 1810020E01).
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Nature 420:563-573(2002)
                                                                                                                                                                                                                                                                                      STRAIN=C57BL/6J; TISSUE=Pancreas;
                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
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(JUL-2000)
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                                          the
                                          EMBL/GenBank/DDBJ databases
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Sciurognathi; Muridae;
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on functional annotation
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RESULT 4
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RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hullyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Modriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Jones S. I Marra M A.
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EMBL; BC023171; AAH23171.1; -...
MGD; BC023171; AAH23171.1; -...
MGD; GO:0016021; C:integral to membl
InterPro; IPR009801; DUF1370.
Pfam; PF07114; DUF1370; 1...
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Q9RNG8;

16-OCT-2001 (Rel. 4

16-OCT-2001 (Rel. 4

25-OCT-2004 (Rel. 4
                                                                                                                                                                          MEDLINE=99400423; PubMed=10471375; DOI=10.1006/bbrc.1999.1238; Saraiva L.M., da Costa P.N., LeGall J.; "Sequencing the gene encoding Desulfovibrio desulfuricans ATCC nine-heme cytochrome c.";
                                                                                                                                                                                                                                                                                                                                                  Nine-heme cytochrome c precursor (9Hcc)
Desulfovibrio desulfuricans.
Bacteria; Proteobacteria; Deltaproteoba
                                          Carrondo M.A.;
                                                            MEDLINE=20022508; PubMed=10555582
Matias P.M., Saraiva L.M., Soares
                                                                                                 SEQUENCE FRO
                                                                                                                                                          Biochem.
                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=ATCC 27774;
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                      "Nine-haem cytochrome
                                                                                                                                                                                                                                                                                                                                    Desulfovibrionaceae;
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"Generation and initial analysis of more than 15,000
and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=FVB/N; TISSUE=Mammary tumor.
MEDLINE=22388257; PubMed=12477932; I
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                                                          Saraiva L.M.,
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TISSUE=Mammary
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    determination,
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Desulfovibrio.
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                    from
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                    Desulfovibrio desulfuricans
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                                                                                                                                                        262:629-634(1999).
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crystallographic
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  refinement
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PDB; 10FW; X-ray; A/B=31-326.
PDB; 10FY; X-ray; A/B=31-326.
InterPro; IPR000345; CytC heme BS.
InterPro; IPR002322; Cyt CIII.
InterPro; IPR011031; MulTihaem cyt.
Pfan; PF02085; CytCothrom CIII; 1.
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"The primary and three-dimensional structures of a nine-haem
cytochrome c from Desulfovibrio desulfuricans ATCC 27774 reveal a new
member of the Hmc family.";

Structure 7:119-130(1999),

Structure 7:119-130(1999),

Structure 7:119-130(1999),

Structure 7:119-130(1999),

Structure 7:119-130(1999),

Structure 7:119-130(1999),

Structure 7:119-130(1999),
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CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=ATCC 27774;
MEDLINE=99148120; PubMed=10368280; DOI=10.1016/S0969-2126(99)80019-7;
Matias P.M., Coelho R., Pereira I.A.C., Coelho A.V., Thompson A.W.,
                                                                                                                                                                                                                                                                                                          METAL
                                                                                                                                                                                                                                                                                                                                                                              METAL
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PROSITE; PS51008; MULTIHEME_CYTC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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RESULT 5
MURD LACPL
ID MURD LACPL
STANDARD; PRT; 459 AA.
AC Q88V80;
DT 29-MAR-2004 (Rel. 43, Created)
DT 29-MAR-2004 (Rel. 44, Last annotation update)
DE UDP-N-acetylmuramoylalanine--D-glutamate ligase (EC acetylmuramoyl-L-alanyl-D-glutamate synthetase) (D-B adding enzyme).
GN NameemurD; OrderedLocusNames=lp_2197;
GN Lactobacillus plantarum.
OC Bacteria; Firmicutes; Lactobacillales; Lactobacillus
OX NCBI_TaxID=1590;
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Pred. No. 22;
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RESULT
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Q9C7H2;
Q1-JUN-2001 (TrEMBLrel. 17, Created)
Q1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
Q5-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein F28P5.4 (At1g72090/F28P5_4).
Name=F28P5.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kleerebezem M., Boekhorst J., van Kranenburg R., Molenaar D., Klieerebezem M., Boekhorst J., van Kranenburg R., Molenaar D., Kuipers O.P., Leer R., Tarchini R., Peters S.A., Sandbrink H.M., Fiers M.W.E.J., Stiekema W., Klein Lankhorst R.M., Bron P.A., Hoffer S.M., Nierop Groot M.N., Kerkhoven R., De Vries M., Ursing De Vos W.M., Siezen R.J.;
                                                                         SEQUENCE FROM N.A.

Lin X., Kaul S., Town C.D., Benito M., Creasy T.H., Haar

Lin X., Ronning C.M., Koo H., Fujii C.Y., Utterback T.

Maiti R., Ronning C.M., Koo H., Fujii C.Y., Utterback T.

Barnstead M.E., Bowman C.L., White O., Nierman W.C., Fra

Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AL935258; CAD64544.1; -.
HSSP; P14900; ZUAG.
HAMAP; MF_00639; -; 1.
InterPro; IPR004101; Mur_ligase_C.
InterPro; IPR007713; Mur_ligase_N.
InterPro; IPR005762; Mur_ligase_N.
Pfam; PP01225; Mur_ligase_C; 1.
Pfam; PP02875; Mur_ligase_C; 1.
ATP-binding; Cell division; Cell wall; Complete proteome; Ligase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptidoglycan synthesis.
NP_BIND 119 125
SEQUENCE 459 AA; 5013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        + + +
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-I- FUNCTION: Cell wall formation. Catalyzes the addition of
    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=NCIMB 8826 / WCFS1;
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CATALYTIC ACTIVITY: ATP + UDP-N-acetylmuramoyl-L-alanine + Glutamate = ADP + phosphate + UDP-N-acetylmuramoyl-L-alanyl-D-glutamate.

SIMINATE: Peptidoglycan biosynthesis.

SUBCELLULAR LOCATION: Cytoplasmic (By similarity).

SIMILARITY: Belongs to the murCDEF family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         403
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Mouse-ear cress).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ٥,
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; 083AB3E45C599DC9 CRC64;
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5. 30;
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                                                                                                                                                                   Haas
ck T.F
                                                                                                                        Fraser
                                                                                                                                                                                                      B.J., Wu
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RESULT
QBIATA
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IDIATA
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DT
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Best Local S
Matches 6
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GO; GO:0005506; F:iron ion binding; IEA.
InterPro; IPR006638; Elp3/miaB_NifB.
InterPro; IPR006466; MiaB_like_B.
InterPro; IPR007197; Radical_SAM.
InterPro; IPR0072792; TRAM.
InterPro; IPR002792; TRAM.
InterPro; IPR005839; UPF0004.
Pfam; PF04055; Radical_SAM; 1.
Pfam; PF0495; Radical_SAM; 1.
Pfam; PF04959; UPF0004; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q8IA76 PRELIMINARY; PRT; 1068 AA.
Q8IA76;
Q1-MAR-2003 (TrEMBLrel. 23, Created)
Q1-MAR-2003 (TrEMBLrel. 25, Last sequence update)
Q1-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Phospholipase c like protein 1, isoform b.
Name=pll-1; ORFNames=K10F12.3;
                                                                                                                   STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
WormBase Consortium;
"Genome sequence of the nematode C. elegans:
investigating biology. The C. elegans Sequenc
Science 282:2012-2018(1998).
    SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; I
SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cheuk R., Chen H., Kim C.J., Shinn P., Bowser L., Carninci P., Chan M.M., Chang C.H., Dale J.M., Hayashizaki Y., Hauan V.W., Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B., Lee J.M., Lin J., Miranda M., Narusaka M., Nguyen M., Onodera C.S., Palm C.J., Quach H.L., Sakurai T., Satou M., Seki M., Southwick A., Tang C.C., Toriumi M., Wong C., Wu H.C., Yamada K., Yu G., Yuan S., Shinozaki K., Davis R.W., Theologis A., Ecker J.R.; Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.

EMBL; AC06273; AAG51137.1; -.

EMBL; AF367274; AAG5623.1; -.

EMBL; BT002712; AAG1628.1; -.
                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Rhabditidae; Pelode:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hypothetical SEQUENCE 6
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PIR; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SM00729; Elp3; 1.
TIGRFAMB; TIGR01578; MiaB-like-B;
TIGRFAMS; TIGR00089; UPF0004; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shinn P., Chen H., Cheuk R., Kim C.J., Meyers M.C., Banh J.,
Bowser L., Carninci P., Chung M.K., Goldsmith A.D., Hayashizaki Y.,
Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B.,
Lee J.M., Lin J., Liu S.X., Miranda M., Narusaka M., Nguyen M.,
Palm C.J., Pham P.K., Quach H.L., Sakano H., Sakurai T., Satou M.,
Seki M., Southwick A., Toriumi M., Yamada K., Yu G., Shinozaki K.,
Bayis R.W., Theologis A., Ecker J.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS50926; TRAM; 1.
PROSITE; PS01278; UPF0004; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            514
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                                                                                                                                                                                                                                                                                                                                                               FROM
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601 AA; (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peloderinae;
                                                                                                                                                                                                                                                                                                                                                               N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nematoda; Chromadorea; rinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65496 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 6; DB 2; Pred. No. 39; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
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                                                                                                                                                    legans: a platform
Sequencing Consort
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            update)
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                                                                                                                                                             Consortium.";
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RESULT Q81A75 Q81A75 Q8 AC Q8 DT 011 DT 011 DT 011 DT 011 DT 011 CN Na CN Na CO Ca CO CE U
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R InterPro; IPR001849; PH. Pelated.

JR InterPro; IPR0011036; PH related.

JR InterPro; IPR001192; PI_PLC.

JR InterPro; IPR001192; PI_PLC_X.

Theorpro; IPR001711; PI_PLC_Y.
                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
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Pfam; PF00387; PI-PLC-Y; 1.
Pfam; PF00387; C2DOMAIN.
PRINTS; PR00360; C2DOMAIN.
PRINTS; PR00390; PHPHLIPASEC.
ProDom; PD001202; PI PLC_Y; 1.
SMART; SM00233; C2; 1.
SMART; SM00234; PH; 1.
SMART; SM00148; PLCXC; 1.
SMART; SM00149; PLCXC; 1.
                                     Q8IA75 PRELIMINARY; PRT; 1075 AA.
Q8IA75;
Q1-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Phospholipase c like protein 1, isoform a.
Name=pll-1; ORFNames=KlOF12.3;
Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Waterston
Submitted
                  Caenorhabditis elegans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS50004; C2 DOMAIN 2; 1.
PROSITE; PS50007; PIFLC X DOMAIN;
PROSITE; PS50008; PIFLC Y DOMAIN;
SEQUENCE 1068 AA; 120042 MW; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WormBase; WBGene00004045; pll-1.
WormPep; K10F12.3b; CE31037.
GO; GO:0004435; F:phosphoinositide phospholipase CGO; GO:0007242; P:intracellular signaling cascade;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WormBase Consortium;
Submitted (SEP-2004) to the
-i- SIMILARITY; Contains 1 C
EMBL; AF025462; AAN72423.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE F
STRAIN=Bri
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STRAIN=Bristol
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"The sequence of C. el
Submitted (SEP-1997) t
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Bristol N2;
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    to the

Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
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C2 domain.
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EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 6;
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Rhabditidae;

Peloderinae;

Caenorhabditis.

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WormBase; WBGeneO0004045; pll-1.

WormPep; K10F12.3a; CE31036.

GO; GO:0004435; F:phosphoinositide phospholipase C act

GO; GO:0007242; P:intracellular signaling cascade; IEF

GO; GO:000629; P:lipid metabolism; IEA.

InterPro; IPR000008; C2.

R InterPro; IPR001093; C2 CaLB.

R InterPro; IPR001035; PH related.

R InterPro; IPR001036; PH related.

R InterPro; IPR001036; PH related.

R InterPro; IPR001090; PI PLC.

R InterPro; IPR001192; PT_PLC.

R InterPro; IPR001191; PI_PLC_Y.

P PAGE PRO01711; PI_PLC_Y.
                                                                            Matches
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Best Local &
                                                                                                                                                SMART; SM00239; C2; T.

SMART; SM00233; PH; 1.

SMART; SM00143; PLCYC; 1.

SMART; SM00149; PLCYC; 1.

PROSITE; PSS0004; C2 DOMAIN 2; 1.

PROSITE; PSS0007; PIFLC X DOMAIN; 1.

PROSITE; PSS0008; PIFLC Y DOMAIN; 1.

SEQUENCE 1075 AA; 121111 MW; 61021
                                                                                                                                                                                                                                                                                                              PRINTS; PR00360; C2DOMAIN.
PRINTS; PR00390; PHPHLIPASEC
ProDom; PD001202; PI_PLC_Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (SEP-2004) to the -!- SIMILARITY: Contains 1 C EMBL; AF025462; AAN72422.1; HSSP; P10688; 1DJH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wohldmann P., Beck C.;
"The sequence of C. elegans
Submitted (SEP-1997) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WormBase Consortium;
WormBase Consortium;
"Genome sequence of the nematode C. elegans: a platform for investigating biology. The C. elegans Sequencing Consortium
                                                                                                                                                                                                                                                                                                                                                                                Pfam;
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STRAIN=Bristol N2;
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STRAIN-Bristol N2;
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MEDLINE=99069613;
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                                                                          Local Similarity
ses 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                            PF00388; PI-PLC-X; 1. PF00387; PI-PLC-Y; 1.
                                     IDNCET 9
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                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=9851916;
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C2 domain.
                                                                        Score 6; DB 2
; Pred. No. 66;
0; Mismatches
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EMBL/GenBank/DDBJ databases
                                                                                                                                                       6102111ABF78AFD4 CRC64;
                                                                                             DB 2;
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                                                                          0,
                                                                                                               Length 1075;
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Q70H34
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C7 V4
C8 P0
C8 P0
C9 P0
C9
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Best Local Similarity
Watches 6; Conserva
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Q7QZU9
                                                                                                                                                                                                                                                                                                                                                                                                                                   Q70H34 PRELIMINARY;
Q70H34;
05-JUL-2004 (TrEMBLrel. 2
05-JUL-2004 (TrEMBLrel. 2
05-JUL-2004 (TrEMBLrel. 2
VARV Bangladesh B22R orth
Skinner M.A., Laidlaw S.M.;

Skinner M.A., Laidlaw S.M.;

"Comparison of the genome sequence of FP9, an attenuated, tissue culture-adapted European fowlpox virus, with those of virulent American and European viruses.";

J. Gen. Virol. 85:305-322(2004).

EMBL; AJ581527; CAB52663.1; -.

EMBL; AJ581527; CAB52663.1; -.

InterPro; IPR007490; Poxvirus B22R.

Pfam; PF04395; Poxvirus B22R; I.

SEQUENCE 1870 AA; 211756 NW; 2423D319743D3F2F CRC64;
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Q7QZU9;
01-MAR-2004
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InterPro; IPR006209; I
InterPro; IPR005127; C
InterPro; IPR009030; C
InterPro; IPR002049; I
                                                                                                                                                                                                                                                                                                                                                     Fowlpox virus (isolate HP-438[Munich]).
Viruses; dsDNA viruses, no RNA stage; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLP_609_15416_20263.
Giardia lamblia ATCC 50803.
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                            Name=fp9.122;
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PROSITE; PS01186; EGF_2; 12.
PROSITE; PS50126; EGF_3; 2.
PROSITE; PS01248; LAMTININ_TYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-2004
01-MAR-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- CAUTION: The sequence shown here is derived from an
EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PF00008; EGF; 2.
PF00053; Laminin_EGF; 1.
PF03302; VSP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P35555; 1EMN.
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EGF_like.
Giardia_VSP.
Grow_fac_recept.
Aminin_EGF.
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169595 MW; B88E3
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Q9J5A0;
01-OCT-2000
01-OCT-2000
01-JUN-2003
                                                                               MEDLINE=94124633; PubMed=8294519; DOI=10.1083/jcb.124.3.381; Vuolteenaho R., Nissinen M., Sainio K., Byers M., Eddy R., Hirvonen H., Shows T.B., Sariola H., Engvall E., Tryggvason K.; "Human laminin M chain (merosin): complete primary structure, chromosomal assignment, and expression of the M and A chain in l
                                                                                                                                                                                                                                                                  TAMA2 HUMAN STANDARD; PRT; 3110 AA. P24043; Q14736; Q93022; Q14736; Q93022; Q1-MAR-1992 (Rel. 21, Created) Q1-NOV-1997 (Rel. 35, Last sequence update) Q5-JAN-2005 (Rel. 46, Last annotation update)
MEDLINE=97066955; PubMed=8910357; DOI=10.1074/jbc.271.44.27664; Zhang X., Vuolteenaho R., Tryggvason K.; "Structure of the human laminin alpha2-chain gene (LAMA2), whic
                                                                        fetal
                                                                                                                                                                                               Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                    HUMAN
                                      SEQUENCE FROM N.A.
                                                                                                                                                 TISSUE=Placenta;
                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                  Name=LAMA2; Synonyms=LAMM;
                                                                                                                                                                                                                                                           Laminin alpha-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AF198100; AAF44466.1; -.
EMBL; AF198100; AAF44466.1; -.
InterPro; IRR007490; Poxvirus B22R; 1.
Pfam; PF04395; Poxvirus B22R; 1.
SFOUENCE 1870 AA; 211756 MW; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=20193820; PubMed=10729156; DCI=10.1128/JVI.74.8.3815-3831.2000; Afonso C.L., Tulman E.R., Lu Z., Zsak L., "The genome of fowlpox virus."; J. Virol. 74:3815-3831(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORF FPV122 variola B22R Name=FPV122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Viruses; dsDNA viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fowlpox virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10261;
                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                        tissues."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TrEMBLrel.
                                                           124:381-394(1994)
                                                                                                                                                                                                                       (Human)
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                                                                                                                                                                                                                                                         chain precursor (Laminin M chain) (Merosin heavy
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                                                                                                                                                                                                                                                                                                                                                                                                                              Score 6; DB 2; Pred. No. 1.1:0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RNA stage; Poxviridae; Chordopoxvirinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 6;
Pred. No.
                                                                                                                                                                                             Craniata; Vertebrata; Catarrhini; Hominidae;
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No. 1.1e+02;
0;
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 gene (LAMA2), which is
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1870
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                                                                                    A chain in human
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membranes (major component).

-!- TISSUE SPECIFICITY: Placenta, striated muscle, peripheral nerve, cardiac muscle, pancreas, lung, spleen, kidney, adrenal gland, skin, testis, meninges, choroid plexus, and some other regions of the brain; not in liver, thymus and bone.

-!- DOMAIN: The alpha-helical domains I and II are thought to interact with other laminin chains to form a coiled coil structure.

-!- DOMAIN: Domains VI, IV and G are globular.

-!- DOMAIN: Domains VI, IV and G are globular.

-!- DISBASE: Defects in LAMA2 are the cause of merosin-deficient congenital muscular dystrophy type 1A (MDC1A) [MIM:607855]. MDC1A is characterized by difficulty walking, hypotonia, proximal weakness, hyporeflexia, and white matter hypodensity on MRI.

-!- SIMILARITY: Contains 5 laminin EGF-like domains.

-!- SIMILARITY: Contains 2 laminin N-terminal domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=22439669; PubMed=12552556; DOI=10.1002/humu.10157; Tezak Z., Prandini P., Boscaro M., Marin A., Devaney J., Marino M., Fanin M., Trevisan C.P., Park J., Tyson W., Finkel R., Garcia C., Angelini C., Hoffman E.P., Pegoraro E.; "Clinical and molecular study in congenital muscular dystrophy with partial laminin alpha-2 (LiMMZ) deficiency."; Hum. Mutat. 21:103-111(2003).

-I-FUNCTION: Binding to cells via a high affinity receptor, laminir is thought to mediate the attachment, migration and organization of cells into tissues during embryonic development by interactii with other extracellular matrix components.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Panicker
Marzluf G
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J. Biol.
                                                   between
                                                                       This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANTS MDC1A TYR-527 AND ARG-862.
MEDLINE=22439669; PubMed=12552556;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 He Y., Jones K.J., Vignier N., Morgan G., Estournet-Mathiaud B., Hori H., Mizuta T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Marzluf G.A., Amato A.A., Me
Hum. Mutat. 13:340-340(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Guicheney
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"Novel single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Congenital muscular dystrophy with primary partial laminin alpha-2 chain deficiency: molecular study.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VARIANT MDC1A PRO-2564.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ERRATUM.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=21476011; PubMed=11591858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          laminin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=90238994; PubMed=2185464;
Ehrig K., Leivo I., Argraves W.S., Ru
Merosin, a tissue-specific basement
             s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EN European Bioinformatics Institute. There are no restriby non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                               SUBUNIT: Laminin is a complex glycoprotein, consisting of three different polypeptide chains (alpha, beta, gamma), which are bot to each other by disulfide bonds into a cross-shaped molecule comprising one long and three short arms with globules at each end. The alpha-2 chain is a subunit of laminin-2 (merosin) and
                                                                                                                                                                                                                                                                                                                                                                                             laminin-4 (S-merosin). SUBCELLULAR LOCATION: Extracellular; found in the basement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               deficiency: molecular s
logy 57:1319-1322(2001).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in congenital muscular dystrophy."; Chem. 271:27664-27669(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Acad.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Amato A.A., Mendell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIS-619; LEU-919; HIS-2586 AND LYS-2614
ndell J.T., Chen L., Feng B., Sahenk Z.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sci. U.S.A. 87:3264-3268(1990)
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           There are no restrictions ng as its content is in
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RNA/SSCP analysis.";
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North K.N.,
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EMBL; U66779; EMBL; U66780; EMBL; U66781; EMBL; U66783; EMBL; U66783; EMBL; U66784; EMBL; U66786; EMBL; U66786; EMBL; U66788; EMBL; U66788; EMBL; U66789; EMBL; U66791; EMBL; U66791; EMBL; U66792; EMBL; U66793; EMBL; U66794; EMBL; U66793; EMBL; U66793; EMBL; U66793; EMBL; U66793; EMBL; U66794; EMBL; U66795; EM
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GO:0005604; C:basement membrane; TAS.
                                                                                                                             email to
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AAB18388.
                                                                   LAMA2
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                                                                                                                                                                                                                                                                                                                                                        JOINED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13

DEF4 ANDAU STANDARD; PR

ID DEF4 ANDAU STANDARD; PR

AC P56686; P81618;
DT 15-UUL-1999 (Rel. 38, Created)
DT 15-UUL-1999 (Rel. 38, Last seque

DT 05-UUL-2004 (Rel. 44, Last annot
                       SOTTT WERE COCCOCCEPTED AND COCCOCCEPTED
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Matches 6
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PRINTS; PR00011; EGFLAMININ.

PRODOM; PD003031; Laminin B; 2.

PROSITE; PS00122; EGF 1; 11.

PROSITE; PS01186; EGF 2; 3.

PROSITE; PS01248; LAM G DOMAIN; 5.

PROSITE; PS01248; LAM G DOMAIN; 5.

PROSITE; PS01248; LAMININ TYPE EGF; 14.

Basement membrane; Cell adhesion; Coiled coil;

Congenital muscular dystrophy; Direct protein sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR008211; Lami
InterPro; IPR003129; TSP
Pfam; PF00052; Laminin_B;
Pfam; PF00053; Laminin_B;
Pfam; PF00054; Laminin_G;
Pfam; PF06008; Laminin_I;
                                                                                                                                                                                                                                                         Ehret-Sabatier I., Loew D., Goyffon M., Fehlbaum P., Hoffmann J.A. van Dorsselaer A., Bulet P., "Characterization of novel cysteine-rich antimicrobial peptides from the complete of the scorpion blood.";

Scorpion blood.";

J. Biol. Chem. 271:29537-29544 (1996).

J. Biol. Chem. 271:29537-29544 (1996).

-I- FUNCTION: Active against Gram-positive bacteria.

-I- SUBCELLULAR LOCATION: Secreted.

-I- MASS SPECTROMETRY: MW=4206.8; METHOD=Electrospray; RANGE=1-37;
                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID DISULFID
                                                                                                                                                     Pfam;
                  SEQUENCE
                                                                                                                                                                                               NOTE=Ref.1.
-!- SIMILARITY: Belongs to
HSSP; P80571; 1FJN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Buthida; Buthoidea; Buthidae; Androctonus.
                                                                                      Antibiotic; Defensin; Direct
                                                                                                                             PROSITE; PS00425; ARTHROPOD
                                                                                                                                                                          InterPro; IPR001542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=6858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Androctonus australis (Sahara scorpion)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR002049; InterPro; IPR001791;
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InterPro; IPR008979;
InterPro; IPR009030;
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InterPro; IPR010307;
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GO:0007517;
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3985; ConA like_lec_gl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38, Last sequence update)
44, Last annotation updat
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EGF like.

Gal_bind_like.

Grow fac recept.

Laminin_B.

Laminin_EGF.

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Laminin_I.

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Laminin_II.
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sin_2; 1.
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By similarity.
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                                                                                                                                  DEFENSINS; 1.
                    AB1363ECE3FB84C1 CRC64;
                                                                                                                                                                                                                      arthropod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     update)
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o. 1.7e+02;
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RESULT 14
DEF4_LEIQH
ID DEF4_LEIQH
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P80154;
SEQUENCE.
TISSUE=Hemolymph;
MEDLINE=93049356; PubMed=1425705;
Bulet P., Cociancich S., Reuland M., S
Bulet P., Hetru C., Hoffmann
                                                                                                                                                                                                                                                 01-DEC-1992
01-DEC-1992
05-JUL-2004
                                                                                                                                                              Aeschna cyanea (Dragonfly) (Blue darner).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Palaeptera; Odonata; Anisoptera; Aeshnidae; Aeshna.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
4 kDa defensin (Antibacterial 4 kDa peptide).
Leiurus quinquestriatus hebraeus (Yellow scorpion).
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
                                                                                                                                             NCBI_TaxID=12921;
                                                                                                                                                                                                                              Defensin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF01097; Defensin 2; 1.
PROSITE; PS00425; ARTHRÖPOD DEFENSINS; 1.
Antibiotic; Defensin; Direct protein sequ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR; JN0613; JN0613.
HSSP; P80571; 1FJN.
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Buthida; Buthoidea; Buthidae; Leiurus.
NCBI_TaxID=8884;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Purification and characterization of a scorpion defensin, a 4kDa antibacterial peptide presenting structural similarities with insect defensins and scorpion toxins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hoffmann J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cociancich S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=93326112; PubMed=8333834;
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                                                                                                                                                                                                                                               24, Created)
24, Last sequence 44, Last annotation
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4326 MW;
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33
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k; Pred. No. 49;
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                                    Bischoff R., Hegy G.,
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                                                                                                   DISULFID
                                                                                         SEQUENCE
                                                                                                                      PROSITE; PS00425; ARTHROPOD DEFENSINS; 1.
Antibiotic; Defensin; Direct protein sequencing;
DISULFID 4 26
                                                                                                                                                                                                                                               "A novel insect defensin mediates the inducible antibacterial activity in larvae of the dragonfly Aeschna cyanea (Paleoptera, Odonata)."; Eur. J. Biochem. 209:977-984(1992).
                                                                                                                                                                                         PIR; S27242; S27242.
                                                                                                                                                          Pfam; PF01097; Defensin
                                                                                                                                                                     nterPro;
                                                                                                                                                                                                                                     FUNCTION: Mediates the inducible antibacterial activity in larvae
                                                                                                                                                                                                               SUBCELLULAR LOCATION: Secreted
                                                                                                                                                                                                                         of A.cyanea.
\omega
                                                                                                                                                                               P80571; 1FJN
                      9
                                           Similarity 5; Conserv
TCTCY 37
               TCTCY 13
                                                                                                                                                               IPR001542; Defensin_anpod.
                                                                                       38 AA;
                                           Conservative
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15
                                                                                       4180 MW;
                                       33.3%; Sur
100.0%; Pr
                                                                                                                                                                                                     the
                                                     Score 5; I
                                                                                     By similarity.
By similarity.
7C884A8FDF54A46A CRC64;
                                                                                                                                                                                                   arthropod defensin family. Subfamily
                                           Mismatches
                                                     DB 1;
o. 50;
                                                                Length 38;
                                          0; Indels
                                                                                                                                  Insect immunity.
                                          0,
                                         Gaps
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Search completed: May 4, Job time: 26.7455 secs 2005, 14:33:08

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5.1.6 Compugen Ltd

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Minimum
Maximum
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| 56.2               | 57.8               | 59.4               |                    |                    | 64.1               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    | 84.4               | 85.9               |
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## ALIGNMENTS

RESULT 1 AAO17965 16-OCT-2000; 2000CA-02321256. 20-AUG-2001; 2001CA-02355334. Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; 30-AUG-2002 AA017965 standard; protein; 15-OCT-2001; 2001WO-CA001463 Homo sapiens. Human prostate secretory protein of 94 amino acids PSP94 analogue #54 AA017965 (PROC-) PROCYON BIOPHARMA INC 25-APR-2002. WO200233090-A2 benign prostate (first entry) hyperplasia; cytostatic. 64 B

The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The

analogue of the

New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.

Claim 2;

Page 93-94; 185pp; English.

Garde

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Panchal CJ,

Baijal-Gupta

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WPI; 2002-471401/50.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                                         Sequence
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noprotein; human seminal plasma inl
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Use of prostate secretory protein-94 for treating hypercalcemia of malignancy and reducing skeletal metastasis arising from carcinomas prostate and breast cancers.
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                                                                                                                                                                                                                                                                                                                                                                                              64:
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                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                                    EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS
                                                   standard;
                                                                                                                                                                                                                                      EWII
                                                                                                                                                                                                                                                                                                               EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDFKKTCSVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shukeir N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      prostate secretory protein-94 (PSP-94)
                                                                                                                                                                                   94
                                                                                                                                                                                                                                   64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; prostate secretory protein-94; PSP-94; malignancy; carcinoma; prostate cancer; breast cancer; ne related peptide; PTHrP; skeletal metastasis.
                                                   protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein;
                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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                                                   102
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                                                                                                                                                                                                                                                                                                                                                                                      Score 64; DB
Pred. No. 8e-
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                    8e-61;
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RESULT 5
ABR56228
ID BER5
XX ABR5
XX ABR5
XX
DT 20-N
XX
DE Reco
XX
KW Cyto
KW hype
KW para
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Best Local S
Matches 64
              Cytostatic; prostate secretory protein-94; PSP-94; hypercalcaemia of malignancy; carcinoma; prostate of parathyroid hormone related peptide; PTHrP; skeleta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New human prostate secretory protein of 94 amino acids, useful inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stongastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                       ABR56228
                                                                                                                                                                  ABR56228 standard; protein; 102
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Garde
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20-AUG-2001; 2001CA-02355334.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cancer; human; PSP94; prostatic inhibin protein;
                                                                                                         20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                          present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-471401/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-OCT-2001; 2001WO-CA001463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-APR-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (PROC-) PROCYON BIOPHARMA INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Page 73-74; 185pp; English.
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                                                                                                                                                                                                                                                                                                                                                                  64;
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                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                             EWII 102
                                                                                                                                                                                                                                                                          EWII 64
                                                                                                                                                                                                                                                                                                      EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS
                                                                                                                                                                                                                                                                                                                       EWQTDNCETCTCYBTEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS
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                                                                                                                                                                                                                                                                                                                                                               100.0%;
ilarity 100.0%;
Conservative 0;
                                                                          prostate
                                                                                                                                                                                                                                                                                                                                                                                                                            ΑA;
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                                                                                                       (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         is an analogue of the invention
                                                                          secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baijal-Gupta M,
                                                                                                                                                                                                                                                                                                                                                               Score 64; DB 5; 1
Pred. No. 8.6e-61;
; Mismatches 0;
                                                                          protein-94
                                                                                                                                                                   ₿
            pma; prostate cancer; breast cancer;
pTHrP; skeletal metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fraser J,
                                                                          (PSP-94).
                                                                                                                                                                                                                                                                                                                                                                                           Length 102;
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RESULT 6
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Best Local
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 Dumas Milne Edwards
                                              26-FEB-1999;
                                                                                                                     EP1033401-A2
                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to the use of prostate secretory protein-94 (PSP-94; the present sequence) for treating a patient suffering from hypercalcaemia of malignancy. PSP-94 is useful for treating a patient suffering from hypercalcaemia of malignancy axising from carcinomas, prostate and breast cancer. The PSP-94 is also useful for reducing parathyroid hormone related peptide (PTHrP) levels in a patient in need and reducing the development of skeletal metastasis. The PSP-94 is also used for the manufacture of a pharmaceutical composition for the treatment of hypercalcaemia of malignancy and/or skeletal metastasis
                                                                       21-FEB-2000; 2000EP-00200610
                                                                                              06-SEP-2000
                                                                                                                                          Homo sapiens
                                                                                                                                                                             Human;
                                                                                                                                                                                                                             06-OCT-2000
                                                                                                                                                                                                                                                                          AAG03726 standard; protein; 114 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Use of prostate secretory protein-94 for treating hypercalcemia of malignancy and reducing skeletal metastasis arising from carcinomas, prostate and breast cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 35-36; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-441476/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rabbani SA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-NOV-2001; 2001CA-02361736
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                        (GEST ) GENSET
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                                                                                                                                                                  therapy;
                                                                                                                                                                                                      secreted
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                                                                                                                                                                                                                                                                                                                                                                                                                                      64;
                                                                                                                                                                              5' EST;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                     EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   102 AA;
                                                                                                                                                                                                                                                                                                                                       EWII 102
                                                                                                                                                                                                                                                                                                                                                             EWII 64
                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shukeir N,
                                                                                                                                                                  chromosome mapping.
                                                                                                                                                                                                     protein,
                                                                                                                                                                             expressed
                                               99US-0122487P
J,
                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
 Duclert
                                                                                                                                                                                                     SEQ ID NO: 7807.
                                                                                                                                                                             sequence tag; secreted protein; cDNA isolation;
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                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 64;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
 Giordano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Newman C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 8.6e-61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 7;
 Ċ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>,</u>
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WPI; 2000-500381/45. N-PSDB; AAC03732.

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RESULT 7
AAU280A77
ID AAU2
XX AAU2
XX AAU2
XX AAU2
XX Huma
DE Nove
XX Huma
KW isch
KW trar
KW anyc
KW gut
KW gut
KW mult
KW fert
XX mult
XX mu
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Best Local S
Matches 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ischaemia-reperfusion injury; haematopoiesis; cancer; neuropathy; transgenic animal; Alzheimer's disease; Parkinson's disease; burn, amyotrophic lateral sclerosis; platelet disorder; thrombocytopenia; ulcer; osteoporosis; bone degenerative disorder; periodontal disease gut protection; lung; liver fibrosis; immune deficiency; infection; gut protection; lung; liver fibrosis; immune deficiency; infection;
                                                                                                                              07-MAR-2000;
19-MAY-2000;
                                                                                                                                                                                                                               05-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence is a polypeptide encoded by one of a large number of 5' ESTs derived from mRNAs encoding secreted proteins. The 5' ESTs were prepared from total human RNAs or polyA+ RNAs derived from 30 different tissues. EST sequences usually correspond mainly to the 3' untranslated region (UTR) of the mRNA because they are often obtained from oligo-dT primed cDNA libraries. Such ESTs are not well suited for isolating cDNA sequences derived from the 5' ends of mRNAs and even in those cases where longer cDNA sequences have been obtained, the full 5' UTR is rarely included. 5' ESTs are derived from mRNAs with intact 5' ends and can therefore be used to obtain full length cDNAs and genomic DNAs. 5' ESTs are also used in diagnostic, forensic, gene therapy and chromosome mapping procedures. They are used to obtain upstream regulatory sequences and to design expression and secretion vectors
                                                               14-JUL-2000;
                                                                                                    17-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                           WO200166689-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          severe combined immunodeficiency; SCID; autoimmune disorder; multiple sclerosis; rheumatoid arthritis; diabetes mellitus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; secreted protein; arthritis; Crohn's disease; sepsis; shock;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel human secretory protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 13; SEQ ID NO 7807; 71pp + Sequence Listing; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fertility; analgesic; pain; antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU28067 standard; protein; 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 114 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              111 EWII 114
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2000US-00519705.
2000US-00596193.
2000US-00566847.
2000US-00665363.
2000US-00693267.
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Pred.
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and for regeneration of bone, cartilage, tendon, ligament and/or nerve continued to the same growth, and in tissue repair, healing of burns, incisions, ulcers, cfor treating osteoporosis, osteoarthritis, bone degenerative disorders, cor periodontal disease. Furthermore, (I) is also useful for gut corporection or regeneration and treatment of lung or liver fibrosis, creperfusion injury in various tissues, various immune deficiencies and conditions, autoimmune disorders e.g. multiple sclerosis, crheumatoid arthritis, diabetes mellitus, myasthenia gravis, allergic reactions and conditions, such as asthma or other respiratory problems. CI in addition, (I) affects biorhythms or circadian cycles of rhythms, carabolism, anabolism, storage or elimination of cietary fat, lipid, protein, carbohydrate, vitamins, minerals, provides caralgesic effects or other pain reducing effects, immunoglobulin like activity and can act as an antigen in a vaccine composition to raise an immune response. AAU28020-AAU28395 represent novel human secreted protein and condition sequences of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ischaemia-reperfusion injury, shock, sepsis, immune responses, and is involved in increasing haematopoiesis, stem cell survival, bone growth and remodeling. (I), (II) and modulators of (II) are useful for prophylaxis or treatment of one or more cancers. (II) is also useful for creating transgenic animals useful for studying the in vivo activities of the polypeptide as well as for studying modulators of the polypeptides. (I) induces the proliferation of neural cells and regeneration of nerve and brain tissue and is useful for the treatment of central and peripheral nervous system diseases and neuropathies, such as Alzhaimer's, Parkinson's disease, Huntington's disease, and amyotrophic lateral sclerosis. In addition, (I) is involved in chemotactic or chemokinetic activity, regulation of haematopoiesis and is useful for treating myeloid or lymphoid cell disorders, platelet disorders such as thrombocytopenia and for receperation of home. Cartilage tenden in the motor of the properties and the properties of th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel polypeptides and nucleic acids obtained from cDNA libraries prepared from various human tissues, for diagnosis and treatment cancer, neurological, inflammatory, and autoimmune disorders.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 3; SEQ ID NO 236; 107pp;
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Yang Y,
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ng J, Chen
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                                                                                   human secreted protein
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Wang
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Sequence 114 Ā

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Pred. No.
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28-AUG-2003 ABR54574;

(first

entry)

ABR54574 standard; protein;

114 AA

Prostatic secretory protein SEQ ID 1003.

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Carter D, Li
Mcneill PD, H
                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to novel prostate-specific proteins (PSP) and their coding sequences. The PSPs and their coding sequences are useful for stimulating an immune response in a patient, or for treating prostate cancer in a patient and for determining, detecting or diagnosing the presence of a cancer in a patient. The present sequence was used to the presence of a cancer in a patient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New prostate-specific proteins and genes, useful in gene therapy, particularly for stimulating an immune response in a patient, or treating prostate cancer in a patient, as well as for diagnosing prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-MAY-2001; 2001US-00852911.
29-JUN-2001; 2001US-00895814.
10-DEC-2001; 2001US-00012896.
                                                                                                                 Prostate cancer marker protein
                                                                                                                                             04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 114 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 2; Page 666; 691pp; English.
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                                       WO2003009814-A2
                                                                                         Prostate; cancer;
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Fanger GR, Retter MW, Stolk JA, Day CH, Vec
Li SX, Wang A, Skeiky YAW, Hepler WT, Hural
Houghton RL, Vinals Y De BassolsC, Foy TM,
                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                         cytostatic; gene therapy; marker.
                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 64; DB 6; I
100.0%; Pred. No. 9.6e-61;
tive 0; Mismatches 0;
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cancer.
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W, Stolk JA, Day CH, Vedvick TS;
iky YAW, Hepler WT, Hural J;
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12-NOV-2002; 2002US-00294025.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to newly discovered cancer markers associated with CC the cancerous state of prostate cells. Also disclosed is a method of CC assessing whether a patient is afflicted with prostate cancer. The method CC of the invention involves assessing whether a patient is afflicted with CC prostate cancer by comparing the level of expression of a marker in a CC patient sample and the normal level of expression of the marker in a CC control non-prostate cancer sample, where a significant increase in the CC level of expression of the marker in the patient sample and the normal CC level indicates that the patient is afflicted with prostate cancer. CC Nucleic acids of the invention are useful for diagnosing or treating CC prostate cancer, and may be useful in gene therapy. Sequences given in CC ADB75177-ADB75631 represent marker cDNA and proteins. Note: The sequence CC data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at CC ftp.wipo.int/pub/published_pct_sequences.
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22-AUG-2001; 2
25-SEP-2001; 2
12-DEC-2001; 2
05-MAR-2002; 2
                                                                                                                            Human; prostate specific cDNA; cytostatic; immunostimulant; ger cell therapy; vaccine; T-cell epitope; class I major histocompatibility complex allele; MHC; prostate
                                                                                                                                                                                          Human prostatic secretory protein (PSP).
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                                                            US2003185830-A1
                                                                                       Homo sapiens
                                                                                                                   tumour; antigen
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Kamatkar S
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; 2001US-0314356P.
; 2001US-0325020P.
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; 2002US-0362158P.
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                                                                                                                     cell.
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Pred. No. 9.6e-61;
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Glatt K, Zhao X,
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Anderson D;
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09-AUG-
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12-MAY-2000;
13-JUN-2000;
27-JUN-2000;
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14-JAN-2000;
27-MAR-2000;
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23-SEP-1998;
15-JAN-1999;
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01-AUG-1997;
09-FEB-1998;
25-FEB-1998;
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13-JUL-1999;
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; 2001US-00012896.
; 2002US-00144678.
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99US-00288946
99US-00352616
99US-00439313
99US-00439686
2000US-00483672
2000US-00536857
2000US-00536857
2000US-00570737
                                                                                                                                                                                                                                                       2000US-00709729.
2001US-00759143.
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2000US-00657279.
2000US-00679426.
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2000US-00636215.
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98US-00030607.
98US-00115453.
98US-00159812.
                                                                                                                                                                                                                                                                  -00685166
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(CORI-) CORIXA CORP

Stolk JA, Kalos 3

WPI; 2003-756193/71.

New isolated polypeptide for use in a vaccine for stimulating an immune response, or for treating or diagnosis cancer, preferably prostate

Example 34; Page; 101pp; English.

CC encoding the proteins and peptides, expression vectors, a host cell contacting the proteins and peptides, expression vectors, a host cell contacting that specifically binds to the protein or peptide, detecting the presence of a cancer in a patient (comprising contacting a patient CC sample with a binding agent that binds to the peptides or a polypeptide cappearing as ADB1358, detecting the amount of polypeptide that binds to the agent and comparing the amount of polypeptide to a predetermined cut-cc off value to determine the presence of cancer), a fusion protein CC specific for a tumour protein comprising contacting T cells with the CC specific for a tumour protein composition comprising the peptides, antibodies or composition comprising the presence of a cancer in a patient and treating prostate cancer in a cc cancer in a patient and treating prostate cancer in a patient with the peptides or antigen presenting cells that express CC (the peptides so that the T cells proliferate, and administering the presence of concer in a patient to the patient. The peptides (or an oligonucleotide that hybridises to nucleic acid encoding them), is used to detect the concer in a patient of calls sypersing the nucleic acids, antibodies, fusion process, nucleic acids, antibodies, fusion process, nucleic acid, are used to concert in a patient of cells specific for a tumour protein. The peptides, or concert in a patient of cells are used to concert in a patient of cells are used to concert in a patient of cells are used to concert in a patient of cells are used to concert in a patient of cells are used to concert in a patient of cells are used to concert in a patient of cells are used to concert in a patient of cells are used to cells are used The invention relates to an isolated polypeptide comprising no more than 11-542 amino acids of ADB13563 comprising a sequence ADB14487. The peptides comprise a fragment ADB13563 of that contain naturally processed T-cell epicopes for 3 class I major histocompatibility complex (MHC) alleles. ADB13563 is a polypeptide encoded by a human prostate specific CDNA, one of 648 disclosed as new. Also included are nucleic acids used to stimulate

Dillon DC,

Mitcham JL,

Harlocker SL,

Jiang Y,

Henderson RA;

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RESULT 11
ADG26976
ID ADG26
XX ADG26
XX ADG26
XX ADG26
XX ADG26
XX Humar
XX Humar
XX Humar
XX Humar
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XX O9-1
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Best Local S
Matches 64
                                                                                                                                                      09-AUG-2000;
29-AUG-2000;
06-SEP-2000;
02-OCT-2000;
10-OCT-2000;
10-NOV-2000;
12-JAN-2001;
19-FEB-2001;
                                                                                                                                                                                                                                                                                                                                       13-JUL-1999;
12-NOV-1999;
18-NOV-1999;
14-JAN-2000;
27-MAR-2000;
09-MAY-2000;
12-MAY-2000;
13-JUN-2000;
13-JUN-2000;
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23-SEP-1998;
15-JAN-1999;
09-APR-1999;
                                                                                                              09-MAY
29-JUN
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01-AUG-1997;
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                                            CORIXA CORP
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                                                                                    2000US-00570737.
2000US-00593793.
2000US-00605783.
2000US-00636215.
2000US-00636213.
2000US-00679426.
2000US-00679426.
2000US-00679426.
2000US-0079729.
2001US-00799729.
2001US-00799729.
2001US-00780669.
2001US-00895814.
2001US-00895814.
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2000US-00536857.
2000US-00568100.
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ilarity 100.0%;
Conservative (
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98US-00159812.
99US-00232149.
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99US-00439313
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Pred. No. 9.6e-61;
Mismatches 0;
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l, the
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RESULT 12
ADJ68
ID ADJ68
XX ADJ68
XX ADJ68
XX DF O6-MA
XX Mitco
KW Mitco
KW Hunti
KW Leber
KW myocl
KW myocl
KW mosteo
XX MO200
XX OSTEO
PN WO200
XX 12-AI
PR 11-JI
PR 11-JI
PR 12-SI
XX (MITC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to human prostate-specific polypeptides and the polynucleotides encoding them. The invention also relates to an isolated antibody or its antigen-binding fragment that specifically binds a polypeptide of the invention, a method of detecting cancer in a patient comprising contacting a biological sample of the patient with an agent that binds a prostate-specific polypeptide and comparing the amount of bound polypeptide compared to a predetermined cut-off value and a fusion protein comprising a prostate-specific polypeptide. The sequences of the invention are used to diagnose and treat cancer, particularly prostate cancer. This sequence represents a human prostate-specific polypeptide of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                            mitochondrial encephalopathy lactic acidosis and stroke; MEIAS; myoclonic epilepsy ragged red fibre syndrome; MERRF; cancer; neuroprotective; nootropic; antidiabetic; anticonvulsant; antia
                                  12-APR-2002; 2002US-0372843P.
17-JUN-2002; 2002US-0389987P.
20-SEP-2002; 2002US-0412418P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polynucleotides encoding prostate specific polypeptides isolated from a human prostate tumor cDNA library are useful to diagnose and treat
                                                                                                        04-APR-2003; 2003WO-US010870.
                                                                                                                                                                         WO2003087768-A2
                                                                                                                                                                                                                                           osteopathic;
                                                                                                                                                                                                                                                                                                            Huntington's disease; osteoarthritis; LHON; Leber's hereditary optic neuropathy; LHON;
                                                                                                                                                                                                                                                                                                                                                mitochondrial; human;
                                                                                                                                                                                                                                                                                                                                                                                 Human heat mitochondrial protein as a therapeutic target SeqID532
                                                                                                                                                                                                                                                                                                                                                                                                                      06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADJ68726 standard; protein; 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 114 AA;
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Meagher MJ,
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Carter D,
   (MITO-) MITOKOR
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Li SX, Wang A,
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                                                                                                                                                                                                                                             ophthalmological;
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                                                                                                                                                                                                                                                                                                                                              screening assay; diabetes mellitus;
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Skeiky YAW, Hepler WT, Hural
Vinals Y De BassolsC, Foy TM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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Pred. No. 9.6e-61;
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                                                                                                                                                                                                                                                            anticonvulsant; antiarthritic;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                             cytostatic; respiratory; antiasthmatic; gene therapy; differential gene expression; respiratory disorder; lung cancer; chronic obstructive pulmonary disease; emphysema; asthma.
                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
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                                                                                                                                                  04-JUN-2002; 2002US-0386005P
                                                                                                                                                                                                         02-JUN-2003; 2003WO-US017409.
                                                                                                                                                                                                                                                                      11-DEC-2003
                                                                                                                                                                                                                                                                                                                            WO2003101283-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Respiratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADK70534;
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                                                                                           (INCY-), INCYTE CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; SEQ ID NO 532; 180pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease differentially expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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Pred. No. 9 6e-61;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
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Rickert PK,

Krasnow

2004-042945/04

Claim 14; SEQ ID NO 270; 343pp; English

or asthma.

New combination comprising cDNAs and proteins that are differentially expressed in respiratory disorders, useful for diagnosing or treating respiratory diseases e.g. lung cancer, chronic obstructive pulmonary

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06-AUG-2002; 2002JP-00229312
20-MAR-2003; 2003JP-00077212
WPI; 2004-193155/19.
                        Ohtani N,
                                                  (GENO-)
                                                 GENOX RES
                      Sugita Y,
                      Yamaya M,
                      Kubo H,
                    Nagai
                      Ξ
                     Izuhara
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                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 64
                                                                                                                                                                                                                                                                                                                                                            The invention relates to cDNA sequences that are differentially expressed in respiratory disorders or their complements or encoded proteins. The cDNAs and proteins are useful for diagnosing, treating or monitoring treatment of a subject with a respiratory disease including lung cancer, chronic obstructive pulmonary diseases, emphysema or asthma. The protein is also useful for screening molecules or compounds to identify at least one ligand which specifically binds the protein. It is also useful for preparing and purifying a polyclomal or monoclomal antibody. This sequence corresponds to a protein of the invention.
   Marker
                              20-MAY-2004
                                                          ADJ75600
                                                                                     ADJ75600 standard;
                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                             111 EWII 114
                                                                                                                                                                                       61
                                                                                                                                                                                                                51 EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS
 gene
                                                                                                                                                                                                                                                                             64;
                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                       114
                                                                                                                                                                                                                                     EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS 60
                                                                                                                                                                                         EWII 64
   related
                             (first entry)
                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                     protein; 114 AA
amino
                                                                                                                                                                                                                                                                                        100.0%;
acid sequence SEQ ID NO:852.
                                                                                                                                                                                                                                                                        0;
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Pred.
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                                                                                                                                                                                                                                                                                                       DB 8;
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RESULT 14
ADJ75600
ID ADJ75
AC ADJ75
AC ADJ75
XX 20-MA
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AC ADJ75
XX 20-MA
XX 20-MA
XX 20-MA
XX 20-MA
XX 20-MA
XX 01-MA
XX
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bronchial asthma; chronic obstructive pulmonary disease; respiratory epithelial cell; interleukin-13; respiratory; antiasthmatic;

sapiens.

04-AUG-2003; 2003EP-00254857 03-MAR-2004. EP1394274-A2.

Testing for bronchial asthma or chronic obstructive pulmonary disease by comparing the expression level of a marker gene in a biological sample from a subject with the expression level of the gene in a sample from a

Example 11; SEQ ID NO 852; 241pp; English.

The present invention describes a method of testing for bronchial asthma

> Ct testing for bronchial asthma or chronic obstructive pulmonary disease;
> (C (2) a kit for screening for a candidate compound for a therapeutic agent
> (C (2) a kit for screening for a candidate compound for a therapeutic agent
> (C (2) a kit for screening for a chronic obstructive pulmonary disease;
> (3)
> (C (2) a naimal model for bronchial asthma or chronic obstructive pulmonary
> (C (3) a naimal model for bronchial asthma in a mouse;
> (5) a
> (C) method for producing an animal model for bronchial asthma in a mouse;
> (5) a
> (C) obstructive pulmonary disease;
> (6) a therapeutic agent for bronchial
> (C (2) asthma or chronic obstructive pulmonary disease, comprising the compound,
> (C (3) a marker gene or an antisense mucleic acid corresponding to a portion of
> (C (4) a protein encoded by a marker gene; and (7) a DNA chip for testing for
> (C (4) a protein encoded by a marker gene; and (7) a DNA chip for testing for
> (C (5) a protein as been immobilised to assay a marker gene.
> (I) has respiratory
> (C (6) and antisthmatic activities, and can be used in gene therapy. The method
> (C (7) a bronchial asthma or chronic obstructive pulmonary disease. The present
> (C (8) bronchial asthma or chronic obstructive pulmonary disease.
> (8) a therapeutic agent for
> (8) conchial asthma or chronic obstructive pulmonary disease.
> (9) a protein pulmonary disease.
> (10) has respiratory
> (11) has respiratory
> (12) bronchial asthma or chronic obstructive pulmonary disease.
> (13) or chronic obstructive pulmonary disease. The method comprises determining the expression level of a marker gene in a biological sample from a subject, comparing the expression level determined with the expression level of the marker gene in a biological sample from a healthy subject, and judging whether the subject has bronchial asthma or chronic obstructive pulmonary disease. The marker gene comprises: (a) a group of genes (S1) whose expression levels increase when respiratory epithelial cells are stimulated with interleukin-13; or (b) a group of genes (S2) whose expression levels decrease when respiratory epithelial cells are stimulated with interleukin-13. Also described: (1) a reagent (I) for Sequence 114 A,

밁 Ş 맑 Ş Matches 64; Query Match Local 111 61 EWII 64 51 Ъ Similarity EWOTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS 110 EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS Conservative 100.0%; 0 Score 64; DB 8; 1 Pred. No. 9.6e-61; ; Mismatches 0; Length 114; Indels 0 Gaps 60 0

RESULT 15 ADN05811 01-JUL-2004 ADN05811; ADNO5811 standard; protein; 114 AA (first entry

antipsoriatic; Antipsoriatic protein sequence #1069 gene therapy; psoriasis; diagnosis

sapiens

WO2004028479-A2 08-APR-2004.

25-SEP-2003; 2003WO-US030907

25-SEP-2002; 2002US-0414006P

(GETH ) GENENTECH INC

Bodary Wu TD; Ś Clark H, Jackman J, Schoenfeld J, Williams PM, Wood WI;

WPI; 2004-305105/28 N-PSDB; ADN05810.

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XFFFXSXSSSSSXS
Search completed: May 4, 2005, 14:25:10 Job time: 130.396 secs
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                                                                                                                                                                                                               Query Match 100.0%; Score 64; DB 8; Length 114; Best Local Similarity 100.0%; Pred. No. 9.6e-61; Matches 64; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                      The invention relates to novel polynucleotide and polypeptides for treating psoriassis or a sequence having at least 80% identity to the above sequences. The nucleic acid is useful for preparing a composition for diagnosing or treating psoriasis in a mammal. This sequence corresponds to one of the polypeptides of the invention.
                                                                                                                                                                                                                                                                                        Sequence 114 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 9; SEQ ID NO 2205; 3069pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New PRO nucleic acid or polypeptide, useful for preparing a pharmaceutical composition for diagnosing or treating psoriasis in a mammal.
                                                                     111 EWII 114 .
                                                                                               61 EWII 64
                                                                                                                                          Gaps
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Minimum DB
Maximum DB
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No.
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seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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                           US-07-899-535A-1
US-09-513-99C-7807
US-09-9513-99C-7807
US-09-99-535A-2
US-09-948-727-2
US-09-065-383-30
US-09-270-767-39485
US-09-270-767-39485
US-09-270-767-39485
US-09-252-91A-25178
US-09-952-540-15519
US-09-902-540-15519
US-09-384-162-8
US-09-384-162-8
US-09-384-162-8
US-09-270-767-46028
US-09-270-767-43557
US-09-288-352-5633
US-09-270-767-43557
US-09-388-352-5633
US-09-388-352-5633
US-09-388-352-5631
US-09-388-352-4181
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                                                                                                      16100, A
16100, A
15693, Ap
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54702, A
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54702, A
54702, A
125178, Appl
15519, A
15519, A
15519, A
17, Appl
17, Appl
17, Appl
17, Appl
17, Appl
17, Appl
16305, Appl
16305, Appl
16100, A
                                         21, Appl
21, Appl
19, Appl
                              4181,
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ALIGNMENTS

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US-07-899-535A-1
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US-07-899-535A-1
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Patent No. 542801
                                                                                                                                                                                                                           COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Vere
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/07/899,535A
FILING DATE: 16-JUN-1992
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: LOUG, George A.
REGISTRATION NUMBER: 25,814
REFERENCE/DOCKET NUMBER: 25,814
REFERENCE/DOCKET NUMBER: S&B-A835
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                    TELEX: 24 8614
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                 TOPOLOGY: lin
MOLECULE TYPE:
HYPOTHETICAL: 1
                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 94 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Sheth, Anil R.
APPLICANT: Garde, Seema
APPLICANT: Garde, Seema
APPLICANT: Panchal, Chandra J.
TITLE OF INVENTION: Pharmaceutical Preparations For
TITLE OF INVENTION: Inhibiting Tumours Associated With Prostate
TITLE OF INVENTION: Adenocarcinoma, Stomach Cancer and Breast Cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 2001 Jef.
CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: sir
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                 . protein
                                                               linear
                                                                               single
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Query Match Best Local & Matches 64

Local Similarity

100.0%; Score 64; DB 1; 100.0%; Pred. No. 1.3e-62;

Length 94;
; Indels

Conservative

0

Mismatches

0

Gaps

0,

EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS

60

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; NAME/KEY: SIGNAL
; LOCATION: -20..-1
; OTHER INFORMATION: score 9
; OTHER INFORMATION: seq VVIFATFVTLCNA/SC
US-09-513-999C-7807
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SOFTWARE: Patent.pm
SEQ ID NO 7807
LENGTH: 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Duclert, A.
APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
Patent No. 6783961
FILE REFERENCE: 59.US2.REG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local
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Patent No. 542801
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 7807, Application US/09513999C Patent No. 6783961
                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Sheth,
APPLICANT: Garde,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/513,999C CURRENT FILING DATE: 2000-02-24 PRIOR APPLICATION NUMBER: US 60/122,487 PRIOR FILING DATE: 1999-02-26
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                 APPLICANT: Panchal, Chandra J.

TITLE OF INVENTION: Pharmaceutical Preparations For
TITLE OF INVENTION: Inhibiting Tumours Associated With Prostate
TITLE OF INVENTION: Adenocarcinoma, Stomach Cancer and Breast Cancer.
                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                           CITY: Arlington
STATE: Virginia
                                                                                                  COUNTRY:
                                                                                                                                                              STREET:
                                                                                                                                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          111 EWII 114
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                                                                                     22202
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                                                                                                                                                                                                                                                                                                                                                                                                   Application US/07899535A
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                                                                                                                      Virginia
                                                                                                                                                        2001 Jefferson Davis Highway, Suite 306
                                                                                                      U.S.A.
                                                                                                                                                                                                                                                                                                                Sheth, Anil R. Garde, Seema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 64; DB 4; ilarity 100.0%; Pred. No. 1.5e-62; Conservative 0; Mismatches 0;
                                                                                                                                                                                 Mr. George Loud
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                                                                                              TELEFAX: 703-415-0962
TELEX: 24 8614
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Sheth, Anil R.
APPLICANT: Sheth, Anil R.
APPLICANT: Garde, Seema
APPLICANT: Panchal, Chandra J.
TITLE OF INVENTION: Pharmaceutical Preparations For
TITLE OF INVENTION: Inhibiting Tumours Associated With Prostate
TITLE OF INVENTION: Adenocarcinoma, Stomach Cancer and Breast Cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 24 8614
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tent No.
                                                                                                                                                                                                                                                                           COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/899,535A
FILING DATE: 16-UN-1992
CLASSIFICATION: 514
CLASSIFICATION: 514
                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: LOUG, GEOTGE A.
REGISTRATION NUMBER: 25,814
REFERENCE/DOCKET NUMBER: S&I
                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
  MOLECULE TYPE:
                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 703-415-0960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 28 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 703-415-0960 TELEFAX: 703-415-0962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Loud, George A.
REGISTRATION NUMBER: 25,814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Rel CURRENT APPLICATION DATA:
                                                                                                                      TELEPHONE: 703-415-0962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
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                     TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
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TOPOLOGY: linear
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                                                        LENGTH:
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                                   amino acid
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                                                        10 amino acids
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2001 Jefferson Davis Highway, Suite 306
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US-07-899-535A-2
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Patent No. 6776993
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Matches 7; Conserv
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                                                                                                               SEQ ID NO 2
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Patent No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                             -09-948-722-2
                                                                                                                                                               PRIOR APPLICATION NUMBER: US 09/485,717
PRIOR FILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: PCT/EP98/05109
PRIOR FILING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: EP 97/114,614.7
PRIOR FILING DATE: 1997-08-23
                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/948,722
CURRENT FILING DATE: 2002-04-08
                                                                                                                                                                                                                                                                                                                                               ENERAL INFORMATION:
APPLICANT: Kaufmann, Stefan H. E.
APPLICANT: Hess, Jurgen
                                                                                                                                                 NUMBER OF SEQ ID NOS: 2
                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Tuberculosis Vaccine FILE REFERENCE: 100564-00079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 2
SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: PCT/EP98-05109
PRIOR FILING DATE: 1998-08-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/485,717
CURRENT FILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: EP 97114614.7
PRIOR FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Kaufmann, Stefan
APPLICANT: Hess, Jrgen
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ORGANISM: Artificial Sequence
                                     TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION: molecule comprising a domain of Mycobacterium ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
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5. 6673353
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                                                                                                                                PatentIn version 3.1
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100.0%; Pr
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100.0%; pri
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; Pred. No. 16;
0; Mismatches
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Pred. No.
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                                                     US-09-065-383-30
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              Query Match
Best Local 9
  Matches
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Matches 7; Conserv
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                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/842,38
FILING DATE: 23-APR-1997
ATTORNEY/AGENT INFORMATION:
NAME: Becker, Cheryl L.
REGISTRATION NUMBER: 35,441
REFERENCE/DOCKET NUMBER: 6084
TELECOMMUNICATION INFORMATION:
TELEPHONE: 847/935-1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION
                                                                                                                                                  INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION NUMBER: US/09/065,383
                                                                                                                                    SEQUENCE CHARACTERISTICS
                                                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                           TYPE: amino a STRANDEDNESS: TOPOLOGY: li
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                                                                                                                                                                                                                                                                                                               FILING DATE:
CLASSIFICATION:
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                                                                                                                       ENGTH:
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Similarity 6; Conserv
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                                                                                                         amino acid
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                                                                                                                       40 amino acids
                                                                                                                                                                             847/938-2623
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 Conservative
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                                                                                linear
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                                                                  No. 6391543e
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           9.4%;
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              Score 6; Pred. No
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 red. No. 17
Mismatches
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Mismatches
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No. 16;
                          Length 40;
 0; Indels
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RESULT 10
US-08-858-207A-428
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: Xaa means any amino US-09-270-767-39485
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                                                                                                         Sequence 428, Applicate Patent No. 6348328 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 54702
                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No. 6703491
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Xaa means any amino acid -09-270-767-54702
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 199-03-17
NUMBER OF SEO ID NOS: 62517
NUMBER OF SEO ID NOS: 62517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: File Reference:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Homburger et al.
                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Drosophila melanogaster
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                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                              ENGTH: 66
                                                                            APPLICANT:
                                APPLICANT:
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                                                                                                                                                                                                                       EDCKYI 29
                                          Hodgson, John
Knowles, David
Nicholas, Richa
                                                                                                                                        Application US/08858207A
Stodola, Robert
VENTION: No. 6348328el Compounds
EQUENCES: 552
                                                                                            Black, Michael
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100.0%; Pr
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b; Pred. No. 27;
0; Mismatches
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Pred. No.
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5. 27;
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                                                                                                                                        SEQ ID NO 25178
                                                                                                                                                                                                                                                                                                                                        Patent No. 6551795
GENERAL INFORMATION:
     Matches
                                  Query Match
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Matches 6; Conserv
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                                                                                                                                                      PRIOR APPLICATION NUMBER: US 60/094,190 PRIOR FILING DATE: 1998-07-27 NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18
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                                                                                                                                                                                                                                                                        APPLICANT: MARC J RUDENFIELD et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 14-MAY-1996
ATTORNEY/AGENT INFORMATION:
NAME: Gimmi, Edward R
REGISTRATION NUMBER: 38,891
REFERENCE/DOCKET NUMBER: P504
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-770-4478
                                                                                   ORGANISM: Pseudomonas aeruginosa
                                                                                                       TYPE: PRT
                                                                                                                      LENGTH:
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PRIOR APPLICATION NUMBER:
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MEDIUM TYPE: Diskett
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                      Local
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STREET: 709 Swedeland
CITY: King of Prussia
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   Similarity 6; Conserv
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     Conservative
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k; Pred. No. 40;
0; Mismatches
   Score 6; DB , ; Pred. No. 44 O; Mismatches
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                      DB 4;
5. 44;
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RESULT 14
US-08-460-309-17
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TYPE: PRT
; ORGANISM: Drosophila melanogaster
US-09-384-162-8
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US-09-902-540-15519
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APPLICANT: Mailk, Kamal
APPLICANT: Mailk, Kamal
APPLICANT: Mailk, Kamal
APPLICANT: Miki L., Brian
TITLE OF INVENTION: No. 6376747el Plant-Derived Map Kinase Kinase
FILE REFERENCE: 08-084280US
CURRENT APPLICATION NUMBER: US/09/384,162
CURRENT FILING DATE: 1999-08-27
NUMBER OF SEQ ID NOS: 24
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 8
FENORU: 999
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APPLICANT: GOLdman, Barry S.
APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
APPLICANT: Slater, Steven C.
APPLICANT: Wiegand, Roger C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILE REFERENCE: 38-10(15849)B
CURRENT APPLICATION NUMBER: US/09/902,540
CURRENT FILING DATE: 2001-07-10
Sequence 17, Application US/08460309
Patent No. 5837496
GENERAL INFORMATION:
APPLICANT: Engvall, Eva
APPLICANT: Leivo, Ilmo
TITLE OF INVENTION: Mucleic Acids
TITLE OF INVENTION: Fragments and
                                                                                                                                                                                                                                                                                                         Best Local Similarity 100.0%; Pred. No. 78 Matches 6; Conservative 0; Mismatches
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PRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 16825
SEQ ID NO 15519
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TYPE: PRT
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Local Similarity 100.0%; Pred. No.
hes 6; Conservative 0; Mismatc
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  Nucleic Acids Encoding Merosin, Merosin Fragments and Uses Thereof
                                                                                                                                                                                                                                                                                                                                                  9.4%;
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US-08-125-077-17
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Best Local Similarity
Matches 6; Conserv
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SEQUENCE CHARACTERISTICS:
LENGTH: 241 amino acid-
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FILING DATE: 21-SEP-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/472,319
FILING DATE: 30-JAN-1990
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/919,951
APPLICATION UNMBER: US 07/919,951
FILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
NAME: CARNEAL OF COMMENT OF CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION
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PRIOR APPLICATION UMBER: US 08/125,077
APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
FILING DATE: US PCT/US 94/10730
                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                        STREET: 43, CONTROL STREET: San Diego CITY: San Diego CTATE: California
                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Engvall, Eva
APPLICANT: Leivo, Ilmo
TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin
TITLE OF INVENTION: Fragments and Uses Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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STATE: California
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4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9.4%; Score 6; DB:
100.0%; Pred. No. 84
7ative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 241;
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SOFTWARE: Patentin Release #1.0, Version #1.25

(CURRENT APPLICATION DATA:
APPLICATION WINMER: US/08/125,077

FILING DATE: 22-SEP-1993

CLASSIFICATION DATA:
APPLICATION NUMBER: US PCT/US 94/10730

FILING DATE: 23-SEP-1994

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/472,319

FILING DATE: 30-JAN-1990

PRIOR APPLICATION UNDER: US 07/919,951

FILING DATE: 30-JAN-1990

PRIOR APPLICATION WINBER: US 07/919,951

APPLICATION WINBER: US 07/919,951

APPLICATION WINBER: US 07/919,951

FILING DATE: 30-JAN-1990

PRIOR APPLICATION WINBER: US 07/919,951

APPLICATION WINBER: US 07/919,951

FILING DATE: 27-JUL-1992

ATTORNEY/AGBNT INFORMATION:
REGISTRATION WINBER: 31,815

REGISTRATION WINBER: 31,815

REFERENCE/DOCKET NUMBER: P-LA 9721

TELEPONE: (619) 535-9001

TELEPONE: (619) 535-901

TELEPONE: (619) 535-901

TELEPONE: (619) 535-9849

INFORMATION FOR SEQ ID NO: 17:

EMBOTH: 241 amino acids

TYPE: amino
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Result
No.
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                    Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d. No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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seq length: 2000000000
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Match Length
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64
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298.385 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          / Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09_RUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_RUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/PCTUS_FUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
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           0 US-09-977-406A-58

0 US-09-977-406A-1

1 US-10-291-360-1

1 US-10-857-338-1

1 US-10-857-346A-2

1 US-10-857-346A-2

1 US-10-10-857-358-2

1 US-10-11-886-1003

1 US-10-11-886-1003

1 US-10-144-678A-1003

1 US-10-294-025-1003

1 US-10-294-025-1003

1 US-10-294-025-1003

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1 US-10-294-025-1003

1 US-10-294-025-1003
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                                                                                                                                                                                                                                                                                                                                                                               Description
Sequence 58, Appl
Sequence 1, Appli
Sequence 1, Appli
Sequence 2, Appli
Sequence 1003, Ap
Sequence 1003, Ap
Sequence 1003, Ap
Sequence 1003, Ap
Sequence 236, App
Sequence 236, App
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| <b>4</b><br>О     | 44    | 43              | 42          | 41    | 40    | 39             | 38 | 37    | 36             | 35    | 34       | ω<br>u  | 32                | 31                | 30    | 29                | 28     | 27           | 26                | 25          | 24                | 23           | 22          | 21             | 20             | 19          | 18         | 17                |                   | 15 .  | 14    |
|-------------------|-------|-----------------|-------------|-------|-------|----------------|----|-------|----------------|-------|----------|---------|-------------------|-------------------|-------|-------------------|--------|--------------|-------------------|-------------|-------------------|--------------|-------------|----------------|----------------|-------------|------------|-------------------|-------------------|-------|-------|
| 34                | 35    | 36              | 37          | 38    | 39    | 40             | 41 | 42    | 43             | 44    | 45       | 46      | 47                | 48                | 49    | 50                | 51     | 52           | 53                | 54          | 55                | 56           | 57          | 58             | 59             | 60          | 61         | 62                | 63                | 64    | 64    |
| 53.1              | 54.7  | •               | •           | •     | •     | •              | •  | •     | 67.2           | •     | •        | ٠       | •                 | 75.0              | 76.6  | •                 |        |              | •                 | •           |                   |              | •           | 90.6           |                | •           |            |                   | •                 | 100.0 | 100.0 |
| 34                | 35    | 36              | 37          | 38    | 39    | 40             | 41 | 42    | 43<br>3        | 44    | 45       | 46      | 47                | 48                | 49    | 50                | 51     | 52           | 53                | 54          | 55                | 56           | 57          | 58             | 59             | 60          | 19         | 62                | 63                | 132   | 114   |
| 10                | 10    | 10              |             |       | 10    |                | 10 | 10    |                |       | 10       |         | 10                | 10                | 10    | 10                | 10     | 10           | 10                | 10          | 10                | 10           | 10          | 10             | 10             | 10          | 10         | 10                |                   | 9     | 16    |
| US-09-977-406A-28 | -0    | -09-977-406A-   | 77-406A-3   | 06A-3 |       | -09-977-406A-3 |    | ΐ     | -09-977-406A-3 | ώ     | 77-406A- | -406A-4 | US-09-977-406A-41 | US-09-977-406A-42 | ż     | US-09-977-406A-44 | -406A- | 9-977-406A-4 | US-09-977-406A-47 | -406A-4     | US-09-977-406A-49 | 9-977-406A-5 | - 1         | -09-977-406A-5 | -09-977-406A-5 | 5           | -977-406A- | US-09-977-406A-56 | US-09-977-406A-57 | 2     | -765  |
|                   | e 29, | equence 30, App | equence 31, | e 32, | e 33, | e 34,          | æ  | e 36, | e 37,          | e 38, | æ        | e 40,   | e 41,             | 42,               | e 43, | Sequence 44, Appl | e 45,  | e 46,        | 47,               | equence 48, | e 49,             | equence 50,  | equence 51, | equence 5      | e 53,          | equence 54, | e 55,      | e 56, App         | e 57,             | 1027, | 32,   |

## ALIGNMENTS

US-09-977-406A-58

RESULT 1

```
Sequence 58, Application US/09977406A
Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
FIITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR PELLING DATE: 2000-10-16
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                                                                                                                                                                                                                                            ; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
US-09-977-406A-58
                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: PatentIn version 3.1
SEQ ID NO 58
                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                          LENGTH: 64
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
  61
                                      61 EWII 64
                                                                                                                                                            64;
EWII
                                                                                                     EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS
                                                                               EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS
                                                                                                                                                            100.0%; Score 64; DB 10; ilarity 100.0%; Pred. No. 1e-59; Conservative 0; Mismatches 0;
64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND METHODS FOR INHIBITING
                                                                                                                                                                                                   Length 64;
                                                                                                                                                            Indels
                                                                                                                                                            0,
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                                                                               60
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US-09-977-406A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 64
                                                                                                                                                                                                                                                                                    Sequence 1, Application US/10291360
Publication No. US20030119744A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PSP-94: Use for Treatment of Hypercalcemia and:
FILE REFERENCE: 06508-051-US-02
CURRENT APPLICATION NUMBER: US/10/291,360
CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION UNUBER: CA 2,361,736
PRIOR FILING DATE: 2001-11-08
                                                                                                                                                                                                                        SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn version 3.1 SEQ ID NO 1
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                                                                 ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
AUTHORS: Ulvsback, M., Lindstrom, C.,
AUTHORS: Lundwall, A
                                                                                                                                                                                                                                         SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: PROCYON BIOPHARMA INC.

TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
TITLE: Molecular cloning of a small prostate protein, known as beta-
TITLE: microsemenoprotein, PSP94 or beta-inhibin, and demonstration of transcripts
TITLE: non-genital tissues.
                                                                                                                                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBLICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DATABASE ACCESSION NUMBER: GI 131436
DATABASE ENTRY DATE: 1988-08-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAGES: 1310-1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE: microsemenoprotein, PSP94 or be TITLE: non-genital tissues. JOURNAL: Biochem. Biophys. Res Commun. VOLUME: 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS: Ulvsback, M., Lindstrom, C., Weiber, H., AUTHORS: Lundwall, A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE: Molecular cloning of a small prostate protein, TITLE: microsemenoprotein, PSP94 or beta-inhibin, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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                                                                                                                                                                                               94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EWII 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 64; DB 10; 100.0%; Pred. No. 1.5e-59; tive 0; Mismatches 0;
                                                                                          Weiber, H.,
                                                                                        Abrahamson, P.A., Lilja,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 94;
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RESULT 5 US-09-977-406A-2 ; Sequence 2, Apj

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US-10-857-358-1
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LENGTH: 94
TYPE: PRT
ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
AUTHORS: Undwall, A"
AUTHORS: Lundwall, A"
AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
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PRIOR FILING DATE: 2001-11-08
PRIOR APPLICATION NUMBER: US 10/291,360
PRIOR FILING DATE: 2002-11-08
NUMBER OF SEQ ID NOS: 7
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CURRENT FILING DATE: 2004-06-01
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TITLE OF INVENTION: PSP-94: Use for Treatment of Hypercalcemia and Bone metastasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 06508-153
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DATABASE ENTRY DATE: 1988-08-01
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ISSUE: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAGES: 1310-1315
DATE: 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE: microsemenoprotein, TITLE: non-genital tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE: Molecular cloning of a
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DATABASE ENTRY DATA
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PAGES: 1310-1315
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E: 1988-08-01
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100.0%; Pred. No. 1.5e-59;
tive 0; Mismatches 0;
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PSP94 or beta-inhibin, and
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Pred. No. 1.5e-59;
Mismatches 0;
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demonstration of transcripts
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RESULT 7
US-10.557-358-2
US-10.657-358-2
; Sequence 2, Application US/10857358
; Publication No. US20050026833A1
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US-10-291-360-2
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US-09-977-406A-2
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LENGTH: 102
TYPE: PRT
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LENGTH: 102
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/10291360 Publication No. US20030119744A1 GENERAL INFORMATION:
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Best Local :
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 06508-051-US-02
CURRENT APPLICATION NUMBER: US/10/291,360
CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: CA 2,361,736
PRIOR FILING DATE: 2001-11-08
NUMBER OF SEQ ID NOS: 6
NUMBER OF SEQ ID NOS: 6
NUMBER OF PATENTIN VERSION 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Publication No. US20030170220A1
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TITLE OF INVENTION: PSP-94: Use for Treatment of Hypercalcemia and Bone metastasis
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                                                                                                          99
                                                                                                                                           61 EWII 64
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                                                                                                          EWII 102
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                                                NUMBER OF SEQ ID NOS: 1011
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1003, Application US/10012896 Publication No. US20020183251A1
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
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CURRENT EPLICATION NUMBER: US/10/857,358
CURRENT FILING DATE: 2004-66-01
PRIOR APPLICATION NUMBER: CA 2,361,736
PRIOR PILING DATE: 2001-11-08
PRIOR PILING DATE: 2001-11-08
PRIOR FILING DATE: 2002-11-08
                                                                                                        FILE REFERENCE: 210121.427C27
CURRENT APPLICATION NUMBER: US/10/012,896
CURRENT FILING DATE: 2001-12-10
                                                                                                                                                         APPLICANT: Meagher, Madeleine Joy
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
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APPLICANT: Dillon, Davin C.
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ORGANISM: Artificial Sequence
ORGANISM: Homo sapiens
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                                   LENGTH: 114
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                                                                                                                                                                                                                                                                  McNeill, Patricia D.
Houghton, Raymond L.
Vinals de Bassols, Carlota
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Hepler, William T.
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Carter, Darrick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Retter, Marc W. Stolk, John A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Harlocker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mitcham, Jennifer L.
                                                                                                                                                                                                                 Wantanabe, Yoshihiro
                                                                                                                                                                                                                                                                                                                                           Henderson, Robert A.
                                                                                                                                                                                                                                                                                                                                                                                                                    Li, Samuel X.
                                                                                                                                                                                                                                  Fanger, Gary R.
                                                                                                                                                                                                                                                                                                                                                                                               Wang, Aijun
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craig H.
ick, Thomas S
                                                                                                                                                                                                                                                   Teresa
                                                                                                                                                                                                                                                                                                                            John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Susan L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>,</u>
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Pred. No. 1.6e-59;
); Mismatches 0;
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RESULT 10
US-10-144-678A-1003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 2001-07-25
PRIOR APPLICATION NUMBER: 60/314,356
PRIOR APPLICATION NUMBER: 60/325,020
PRIOR APPLICATION NUMBER: 60/325,020
PRIOR FILING DATE: 2001-09-25
PRIOR PPLICATION NUMBER: 60/341,746
PRIOR PFLICATION NUMBER: 60/341,746
PRIOR FILING DATE: 2001-12-12
PRIOR APPLICATION NUMBER: 60/362,158
PRIOR FILING DATE: 2002-03-05
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                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Fas
SEQ ID NO 271
LENGTH: 114
GENERAL INFORMATION:
                Sequence 1003, Application US/10144678A Publication No. US20030157089A1
                                                                                                                                                                                                                                                                                                 Matches
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APPLICANT:
APPLICANT:
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APPLICANT:
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CURRENT FILING DATE: 2002-07-25
CURRENT APPLICATION NUMBER: 60/307,982
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APPLICANT: Monahan, John E
APPLICANT: Endege, Wilson (
APPLICANT: Gannavarapu, Mai
APPLICANT: Gorbatcheva, Be
                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Anderson, Dustin
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSME
TITLE OF INVENTION: THERAPY OF PROSTATE CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: MRI-044
                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                           61 EWII 64
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                                                                                                                                                                                                                                                                                                 64;
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                                                                                                                                  EWII 114
                                                                                                                                                                                                            EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS 110
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wonsey, A. Karen
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Kamatkar, Shubhangi
Wonsey, Angela M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Monahan, John E.
Endege, Wilson O.
Gannavarapu, Manjula
Gorbatcheva, Bella
                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                             Score 64; DB 14;
Pred. No. 1.7e-59;
0; Mismatches 0;
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US-10-294-025-1003
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US-10-294-025-1003
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-144-678A-1003
Query Match
Best Local Similarity
                                                                                                                       SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 1003
                                                                                                                                                                                                                                                                                                               Sequence 1003, Application US/10294025 Publication No. US20030185830A1 GENERAL INFORMATION:
                                                                                                                                                                  APPLICANT: Xu, Jiangchun
APPLICANT: Stolk, John A.
APPLICANT: Stolk, John A.
APPLICANT: Stolk, John A.
APPLICANT: Kalos, Michael D.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REPERENCE: 210121.427C29
CURRENT APPLICATION NUMBER: US/10/294,025
CURRENT FILING DATE: 2002-11-12
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                                                                                                                                                         NUMBER OF SEQ ID NOS:
                                                                   TYPE: PRT
ORGANISM: Homo sapiens
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CURRENT FILING DATE: 2002-08-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER FILE REFERENCE: 210121.427C28
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                                                                                                         LENGTH: 114
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64;
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Carter, Darrick
Li, Samuel
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McNeill, Patricia D.
Houghton, Raymond L.
Vinals y de Bassols,
Foy, Teresa M.
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Hepler, William T.
Hural, John
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Kalos, Michael
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Mitcham, Jennifer L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wang, Aijun
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 64; DB 14; llarity 100.0%; Pred. No. 1.7e-59; Conservative 0; Mismatches 0;
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   100.0%;
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   Score
Pred.
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   No.
 DB 14;
1.7e-59;
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US-10-291-172-236
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                                        FILE REFERENCE: 21272-045
CURRENT APPLICATION NUMBER: US/10/221,278
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: 09/693,267
PRIOR FILING DATE: 2000-10-20
PRIOR PPLICATION NUMBER: 09/65,363
PRIOR FILING DATE: 2000-09-19
PRIOR PILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: 09/596,193
PRIOR PILING DATE: 2000-07-14
PRIOR PILING DATE: 2000-07-14
PRIOR PILING DATE: 2000-06-17
PRIOR FILING DATE: 2000-06-17
PRIOR FILING DATE: 2000-06-17
PRIOR FILING DATE: 2000-06-17
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US-10-291-172-236
                                                                                                                                                                                                                                                                                                             Sequence 236, Applic Publication No. US20 GENERAL INFORMATION
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SEQ ID NO 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local Similarity
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                                                                                                                                                                                                                                                                       APPLICANT: Hyseq, Inc
TITLE OF INVENTION: No. US20040034208A1el Nucleic Acids and Polypeptides
                                                                                                                                                                                                                                                                                                                                                                              10-221-278-236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 09/519,705
PRIOR FILING DATE: 2000-03-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 09/693,267
PRIOR FILING DATE: 2000-10-20
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CURRENT FILING DATE: 2000-11-08
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APPLICATION NUMBER: 09/574,454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/616,847
FILING DATE: 2000-07-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                       FILING DATE: 2000-06-17
APPLICATION NUMBER: 09/574,454
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o. US20030228584A1
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Pred. No. 1.7e-59;
Mismatches 0;
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RESULT 15
US-09-925-300-1027
; Sequence 1027, Application US/09925300
; Patent No. US20020151681A1
; GENERAL INFORMATION:
; APPLICANT: Craig Rosen,
; APPLICANT: Steve Ruben
; TITLE OF INVENTION: Nucleic Acids, Proteins and
; TITLE OF INVENTION: NUCLEIC ACIDS, Proteins and
; CURRENT APPLICATION NUMBER: US/09/925,300
; CURRENT FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: PCT/US00/05988
; PRIOR FILING DATE: 2000-03-08
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; TYPE: PRT ; ORGANISM: Homo sapiens US-10-408-765A-532
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US-10-221-278-236
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CURRENT FILING DATE: 2003-04-04
NUMBER OF SEQ ID NOS: 3077
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 532
LENGTH: 114
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PRIOR FILING DATE: 2000-03-07
NUMBER OF SEQ ID NOS: 752
SEQ ID NO 236
LENGTH: 114
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APPLICANT: Ghosh, Soumi
APPLICANT: Fahy, Eoin
APPLICANT: Zhang, Bing
                                                                                                                                          Matches
                                                                                                                                                                           Query Match
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TITLE OF INVENTION: IDENTIFIED IN THE MITOCHONDRIAL PROTEOME
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APPLICANT:
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                                  61 EWII 64
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Taylor, Steven W.
Glenn, Gary M.
Warnock, Dale E.
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EWII 114
                                                                     EWQTDNCETCTCYETEISCCTLVSTPVGYDKDNCQRIFKKEDCKYIVVEKKDPKKTCSVS 110
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Pred. No. 1.7e-59;
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Maximum DB seq length: 2000000000
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Match
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Gapop 60.0 , Gapext 60.0
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1: pir1:*
2: pir2:*
3: pir3:*
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Copyright (c) 1993 - 2005 Compugen Ltd.
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A54667
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| A; Modecule type: protein het A; Residues: 21, 'X', 23-34 <wei> bte A; Experimental source: gastric juice  R; Nolet, S:; Whikay, M.; Chretien, M.  biochim. Biophys. Acta 1089, 247-249, 1991  ani A; Title: Prostatic secretory protein PSP(94): gene organization and promoter sequence het A; Reference number: \$16237; MUID:91274357; PMID:2054385  A; Accession: \$16238  A; Molecule type: DNA</wei> |   |   | RESULT 1 A34567 beta-microseminoprotein precursor - human N.Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma pi C;Species: Homo sapiens (man) C;Species: | 45 6 9.4 437 2 H84865 ALIGNMENTS |
| ne organization and promoter sequence in<br>2054385   | A;Reference number: A30984; MUID:85004133; PMID:8434350 A;Recession: A30984 protein A;Recession: A30984 A;Recession: A30984 A;Recession: A30984 A;Recession: A30984 A;Recession: A10984 A;Residues: A1-112, 'G', 114 <sei> A;Residues: A1-112, 'G', 114 <sei> A;Residues: A1-112, 'G', 114 <sei> A;Reiber, H.; Andersson, C.; Murne, A.; Rannevik, G.; Lindstroem, C.; Lilja, H.; Fernlund, A.; Pathol. 137, 593-604, 1990 A;Title: Beta microseminoprotein is not a prostate-specific protein. A;Reference number: A60673; MUID:90379237; PMID:2205099 A;Accession: A60673</sei></sei></sei> | :AAA36635.1; PID:g338415 G.D.; Troxler, R.F.; Tsuda, R.; Hara, M icroseminoprotein. 3995056 eth, A.R.; Chretien, M. | RESULT 1 A34567 beta-microseminoprotein precursor - human N;Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma pro C;Species: Homo sapiens (man) C;Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma pro C;Species: Homo sapiens (man) C;Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma pro C;Species: Homo sapiens (man) C;Alternate names: A34567; A26451; A29777; A30984; A60673; S16238; I52682 R;Green, C.B.; Liu, W.Y.; Kwok, S.C.M. R;Accession: A34567; MUID:90211299; pMID:2322265 A;Accession: A34567; MUID:90211299; pMID:2322265 A;Green, C.C.M. A;Reference number: A34567; MUID:90211299; pMID:3514370; pIDN:AAA59871.1; pID:9514372 A;Reference number: Nolet, S.; Fournier, S.; Benjannet, S.; Chapdelaine, P.; Paradis, G.; Dube D;Aftle: Molecular cloning and sequence of the cDNA for a 94-amino-acid seminal plasma p1 A;Accession: A26451; MUID:87161231; pMID:3829888   | probable sterol de               |

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R;Nolet, S.; Mbikay, M.; Chretien, M.
Biochim. Biophys. Acta 1089, 247-249, 1991
A;Title: Prostatic secretory protein PSP(94): gene organization
A;Reference number: S16237; MUID:91274357; PMID:2054385
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A;Cross-references: GB:M92161; NID:g342280; PIDN:AAA36903.1; PID:g342281
                                                                                                                                                                                                                                                                                                                                                                  A;Title: Rapid evolution of prostatic protein PSP-94 suggested by sequence divergence be A;Reference number: A54663; MUID:91244325; PMID:2037304 A;Accession: A54663
                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: UNIPROT:P25142; EMBL:X57932; NID:g38094; PIDN:CAA41003.1; A;Note: the authors translated the codon ACT for residue 54 as Trp R;Nolet, S.; St-Louis, D.; Mbikay, M.; Chretien, M. Genomics 9, 775-777, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seminal plasma protein PSP-94 precursor - rhesus macaque N;Alternate names: prostatic secretory protein PSP94 C;Species: Macaca mulatta (rhesus macaque) C;Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
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A;Residues: 1-114 <NOL>
A;Cross-references: EMBL:X57928; NID:g35760; PIDN:CAA41002.1; PID:g825707
A;Note: the authors translated the codon ACT for residue 54 as Trp
R;Liu, A.Y.; Bradner, R.C.; Vessella, R.L.
Cancer Lett. 74, 91-99, 1993
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A;Map position: 10q11.2-10q11.2
A;Introns: 1/3; 37/1; 72/2
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A;Residues: 1-114 <RESA
A;Cross-references: GB:S67815; NID:9460568; PIDN:AAB29732.1; PID:9460569
C;Comment: This protein is a component of seminal plasma as well as secretory fluids fro
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A;Title: Decreased expression of prostatic secretory protein PSP94 in A;Reference number: I52882; MUID:94115955; PMID:7508990
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C; Superfami
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                                                                                                                                                                                      ;Introns: 1/3; 37/1; 72/2;Superfamily: seminal plasma protein;1-20/Domain: signal sequence #status predicted
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;Gene: GDB:MSMB
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21-114/Product: seminal plasma protein #status exper
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                                                                                                      18;
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                                                 CORIFKKEDCKYIVVEKK 51
    CORIFKKEDCKYIVVEKK 101
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                                                                                                 28.1%; Score 18; llarity 100.0%; Pred. No. Conservative 0; Mismatc
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100.0%; Pred. No. 1.9
Live 0; Mismatches
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                                                                                                   Mismatches
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                                                                                                                       DB 2; L
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R;Grover, S;; Woodward, S.A., Carrier 1992
submitted to the EMBL Data Library, September 1992
A:Description: Partial nucleotide sequence of the Xanthomonas maltophilia CG-receptor.
                                                                                                                                    A;Description: Partial nuc
A;Reference number: S26482
A;Accession: S26482
                                                                                                                                                                                                                                     chorionic gonadotropin receptor - Xanthomonas maltophilia (fragment)
C;Species: Xanthomonas maltophilia
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
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C;Species: Sus scrofa domestica (domestic pig)
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change
C;Accession: S41663
                                                                    A;Cross-references: UNIPROT:P37125; EMBL:X68371; NID:g48553; PIDN:CAA48451.1; PID:g48554
                                                                                  A; Molecule type: DNA

` nocidues: 1-113 <GRO>
                                                                                                                                                                                                  C;Accession: S26482
R;Grover, S:; Woodward, S.R.; Carrell, D.; Odell, W.D.
                                                                                                                                                                                                                                                                                           S26482
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A; Residues: 1-113 <GI
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A;Title: Partial nucleotide sequence of the Xanthomonas maltophilia clay, Reference number: PC1244; MUID:93151816; PMID:8427582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Species: Xanthomonas maltophilia
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chorionic gonadotropin-like receptor - Xanthomonas maltophilia (fragment)
C;Species: Xanthomonas maltophilia
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                                                                                                                      A;Status: preliminary
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A;Title: Amino acid sequence of beta-microseminoprotein A;Reference number: S41663; MUID:94161559; PMID:8117114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: PC1244
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the authors translated codon
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7; Conserva
     Similarity 7; Conser
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10.5°,
100.0%; F1
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100.0%; Pred. No.
                    Score 7;
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PKKTCSV

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A;Cross-references: UNIPROT:P13128; EMBL:X60035; NID:g44110; PIDN:CAA42639.1; PID:g4411:A;Experimental source: strain 12067, serotype 4b
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Infect. Immun. 59, 3945-3951, 1991
A;Title: Listeria monocytogenes isolates can be classified into two major types accordin A;Reference number: S24230; MUID:92040062; PMID:1937753
A;Accession: S24231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Listeria monocytogenes A;Variety: strain 12067
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R;Haas, A.; Dumbsky, M.; Kreft, J.
Biochim. Biophys. Acta 1130, 81-84, 1992
A;Title: Listeriolysin genes: complete sequence of ilo from Listeria ivanovii
A;Reference number: S22340; MUID:92182018; PMID:1543752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Accession: S24231
R;Rasmussen, O.F.; Beck, T.; Olsen, J.E.; Dons, L.; Rossen,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                submitted to the EMBL Data Library, July 1991
A;Reference number: S36683
A;Accession: S36683
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A; Residues: 1-529 < RAS>
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C;Genetics:
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A; Residues: 1-319, 'T', 321-528 < KRE>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Accession: S22341
A;Molecule type: DN
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;Species: Listeria ivanovii
;Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       isteriolysin precursor - Listeria monocytogenes (strain 12067)
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Residues: 1-528 <HAS>
                                                                                                                                                                                 26-529/Product: listeriolysin #status predicted
                                                                                                                                                                                                                               Superfamily: dipepti
Keywords: virulence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
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Best Local
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s; Pred. No. 14;
0; Mismatches
                                                                                                                Score 7; |
Pred. No.
                                                                                           Mismatches
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  A; Authors: Kreft, Jok, C.; Schlueter, '
                                                                                        R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, I
.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.;
                                                                                                                                   C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 09-Jul-2004
C;Accession: AC1100
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                                           Science 294, 849-852,
                                                                                                                                                                               listeriolysin O precursor [imported] - Listeria monocytogenes (strain EGD-e)
C;Species: Listeria monocytogenes
                                                           .; Dominguez-Bernal, G.;
D.; Jones, L.M.; Karst, U
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Schlueter, T : Comparative

T.; Simoes, N.; Tierre: ve genomics of Listeria

.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; We

F.; Berche, P.; Entian, K.D.;

Feihi, Bloecker,

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A;Cross-references: GB:M29171
R;Michel, E.; Reich, K.A.; Favier, R.; Berche, P.; Cossart, P.
Mol. Microbiol. 4, 2167-2178, 1990
A;Title: Attenuated mutants of the intracellular bacterium Listeria monocytogenes obtains A;Reference number: S12400; MUID:91211627; PMID:1965218
A;Accession: S12400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Note: this sequence is derived from a weakly hemolytic strain, serotype 1/2a R;Mengaud, J; Chenevert, J; Geoffroy, C.; Gaillard, J.L.; Cossart, P. Infect. Immun. 55, 3225-3227, 1987
A;Title: Identification of the structural gene encoding the SH-activated hemolysin A;Reference number: A47606; MUID:88057627; PMID:2824384
                                                                                                                                                                                                                                                                                                                                                         C;Superfamily: dipeptide transport protein C;Keywords: virulence factor F;1-25/Dmain: signal sequence #status predicted <8IG>F;26-529/Product: listeriolysin O #status predicted <M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Experimental source: strain EGD A;Note: this sequence is derived R;Mengaud, J.; Chenevert, J.; Geo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Domann, E.; Chakraborty, T.
Nucleic Acids Res. 17, 6406, 1989
A;Title: Nucleotide sequence of the listeriolysin gene from A;Reference number: S05306; MUID:89366684; PMID:2505236
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C;Species: Listeria monocytogenes
C;Date: 21-Oct-1992 #sequence revision 21-Oct-1992 #text_change 09-Jul-2004
C;Accession: A43505; 805306; Ā47606; S12400; A61079
R;Mengaud, J.; Vicente, M.F.; Chenevert, J.; Pereira, J.M.; Geoffroy, C.; G
Infect. Immun. 56, 766-772, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 483-493 <MIC>
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A;Note: this sequence is derived from a strongly hemolytic strain, serotype 1/2c
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RESULT 9
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A; Residues: 413-480 < ME2>
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A;Residues: 1-529 <DOM>
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7; Conserve
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R;Harris, B.
submitted to the EMBL Data Library,
A;Reference number: Z19633
A;Accession: T22898
A;Accession: T27898
                                                                                        A;Map position: 4
A;Introns: 27/2; 135/2; 620/1; 655/1; 874/3
A;Introns: 27/2; 135/2; 620/1; 655/1; 874/3
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Blochim. Blophys. Acta 1130, 81-84, 1992
A;Title: Listeriallysin genes: complete sequence of ilo from Listeria A;Reference number: S22340; MUID:92182018; PMID:1543752
A;Accession: S22340
7.12
                                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJA;Molecule type: DNAA;Residues: 1-917 <WIL>
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A; Residues: 1-530 < HAA>
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C;Date: 22-Nov-1993 #sequence_revision
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A;Residues: 1-529 <GLA>
A;Cross-references: UNIPROT:P13128; GB:NC_003210; PIDN:CAD00729.1; PID:g16409567; GSPDB:
A;Experimental source: strain EGD-e
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A;Molecule type: mRNA
A;Residues: 1-9, 'Y', J1-82,'L', 84-132 <ALP>
A;Cross-references: GB:K01180; NID:g204081; PIDN:AAA41138.1;
C;Superfamily: myelin P2 protein
C;Keywords: blocked amino end; intestine; lipid binding
F;2/Modified site: blocked amino end (Ala) (in mature form) (F;127/Binding site: fatty acid (Arg) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fatty acid-binding protein, intestinal - rat
N;Alternate names: FABP
C;Species: Rattus norvegicus (Norway rat)
C;Date: 17-Dec-1992 #sequence revision 21-Feb-1997 #text_change 09-Jul-2004
C;Accession: I65761; A03147
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B90228
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chem. Phys. Lipids 38, 137-158, 1985
A; Title: Analyzing the structures, functions and evolution A; Reference number: I52850; MUID:86053743; PMID:3840724
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A;Description: Sulfolobus solfataricus complete genome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypothetical protein SSO0783 [imported] - Sulfolobus solfataricus C;Species: Sulfolobus solfataricus C;Date: 24-May-2001 #sequence_revision 24-May-2001 #text_change 09-Jul-2004 C;Accession: B90228
                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:P02693; GB:M35992; NID:g204087; PIDN:AAA41141.1; PID:g204088
R;Alpers, D.H.; Strauss, A.W.; Ockner, R.K.; Bass, N.M.; Gordon, J.I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
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A; Residues: 1-129 < KUR>
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A;Accession: B90228
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G;Species: Zea mays (maize)
C;Date: 24-Mar-1999 #sequence_revision 24-Mar-1999 #text_change 09-Jul-2004
C;Accession: T03397
R;Alba, M.M.; Vinti, G.; Messeguer, R.; Pages, M.
submitted to the EMBL Data Library, April 1997
A;Reference number: Z14927
A;Accession: T03397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: T43245; T38120

R;Kawamukai, M.

submitted to the EMBL Data Library, December 1996

submitted to: S. pombe cDNA for actin depolymerizing factor.

A;Reference number: Z22362

A;Accession: T43245
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A;Molecule type: mRNA
A;Residues: 1-132 <ALIB>
A;Cross-references: UNIPROT:004169; EMBL:Y12762; NID:e1045993; PIDN:CAA73301.1; PID:e31
A;Experimental source: strain L.W64-A
Search completed: May 4, 2005, 14:34:55 Job time: 25.04 secs
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A; Introns: 1/3; 37/1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Experimental source: strain
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A;Accession: T38120
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C;Species: Schizosaccharomyces pombe
C;Date: 11-Jan-2000 #sequence_revision 11-Jan-2000 #text_change 09-Jul-2004
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Residues: 1-137 <CON>
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tes 6; Conservative 0; Mismatches
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| M., Lin, Clonin opportein s in no iophys. Sin no iophys. Rom N.A state, 115955; Bradner expres   | 1FROM N.A. 11274357; if Miklay M. Mbikay M. ic secreto: in rhesus Biophys. J. FROM N.B. 110 W. 131, Liu W. 131, Li | HUMAN HUMAN STANI POBITE; P11999; Q131 01-AUG-1988 (Rel. 08 05-ULL-2004 (Rel. 08 05-ULL-2004 (Rel. 08 beta-microseminoprot protein) (Prostate g protein) (Fromyms- Homo sapiens (Human) Name-MSMB; Synonyms- Homo sapiens (Human) Name-MSMB; Eutheria; Metazoa; Memania; Eutheria; NCBI TaxID-9606; NCBI TaxID-9606; [1] Paradis G., Dube J.Y Chretien M.; Chretien M.; Chretien M.; Chretien M.; Chretien M.; Seminal plasma prote DNA 6:23-29(1987).   | 10.9<br>10.9<br>10.9<br>10.9<br>10.9<br>10.9<br>10.9   |
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| iber H., Abrahamsson E<br>rostate protein, knowr<br>ta-inhibin, and demons<br>ues.";<br>164:1310-1315(1989).<br>164:1310-1016/0304-38<br>a R.L.;<br>tic secretory protein  | M;<br>M;<br>PSP94: gene organization<br>human.";<br>47-249(1991).<br>265;<br>C.M;<br>nce analysis of the huma<br>nce analysis of 1990).  | Jence update)  reation update)  rotation update)  rotein Prostate secreted  rotein PSP94) (PSP-94)  cinding factor) (IGBF)  catarrhini; Hominidae;  Catarrhini; Hominidae;  R., Lazure C., Seidal  R., Lazure Chapo  R., Lazure Chap   | QGEAB7 QGEATQ QGEATQ QGEATQ QGEATQ QOLTBB TACY LISSE Q7Q8VB Q9AYEZ Q5AYEZ Q6AYEZ Q8AYEZ Q8AYE |
| 9A., Lilja H.,<br>1 as beta-<br>stration of<br>135(93)90049-F;<br>PSP94 in prostate  | 81(91)90016-r;<br>and promoter   | seminal plasma (Seminal plasma (PN44).  Sutteleostomi; Homo. homo.  delaine P., h N.G., amino-acid   | Q6eab7 listeria mo Q6eae0 listeria mo Q6eae1 listeria mo Q915b9 listeria mo Q915b9 listeria se Q7q8v8 anopheles g Q6mgp8 bdellovibri Q9aye2 oryza sativ Q75075 ashbya goss Q20970 caenorhabdi Q6w5b5 brachydanio Q91ta4 arabidopsis Q6int0 arabidopsis Q86818 influenza a  |

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RX MEDLINE=2338257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RX Klausner R.D., Collins F.S., Wagner L.H., Schaefer C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Blatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Brians S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gibbs R.A.,
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RA Richards S., Worley K.C., Hale S., Garcia B.J., Lu X., Gibbs R.A.,
RA Richards S., Worley K.C., Hale S., Garcia B.J., Lu X., Gibbs R.A.,
RA Richards S., Worley K.
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MEDLINE=95401076; Pu
                                                                                                                                                     Liang Z.G., Kamada M., Koide S.S.;
"Structural identity of immunoglobulin binding factor secretory protein of human seminal plasma.";
Biochem. Biophys. Res. Commun. 180:356-359(1991).
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Tsuda R., Hara M.;
                                                                                                SEQUENCE OF 21-41,
                                                                                                                                                                                                                                                                                             MEDLINE=92028964;
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[6]
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   world, but not old world, monkeys
-microseminoprotein.";
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nim. Biophys. Acta
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acid sequence of human beta-microseminoprotein."; iophys. Acta 829:288-294(1985).
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                                 PubMed=7671139;
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      Ochiai
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                                                                                                TISSUE SPECIFICITY
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      Ueyama
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DOI=10.1016/1357-2725(95)00021-G;
yama H., Eimoto T., Sasaki M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOI=10.1016/0167-4838(85)90200-6;
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EMBL; M34376; AAA59871.1; J
EMBL; M34373; AAA59871.1; J
EMBL; M34374; AAA59871.1; J
EMBL; M34375; AAA59871.1; J
EMBL; M15885; AAA36635.1; J
EMBL; X57928; CAA41002.1; J
EMBL; X57929; CAA41002.1; J
EMBL; X57929; CAA41002.1; J
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                                                                                                                                                                                                                                    MIM;
                                                                                                                                                                                                                                              Genew; HGNC:7372; MSMB.
H-InvDB; HIX0008822; -
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PIR; G01730; G01730.
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Proteomics 2:112-120(2002).
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DOI=10.1002/1615-9861(200201)2:1<112::AID-PROT112>3.3.CO;2-E;
Ghafouri B., Stahlbom B., Tagesson C., Lindahl M.;
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                                                                                                                                                                                     157145; -. Gextracellular GO:0005615; C:extracellular GO:0005634; C:nucleus; TAS. arPro; IPR008735; PSP94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tube. PSP94 is expressed in lung and breast, whereas PSP57 found in kidney and bladder.
MISCELLANEOUS: Specific receptors for this protein are four spermatozoa and in the prostate.
SIMILARITY: Belongs to the beta-microseminoprotein family.
CAUTION: Was originally thought to inhibit the secretion of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pituitary cells.
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breast and penis. A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IsoId=P08118-2; Sequence=VSP 003275, VSP 003276; TISSUE SPECIFICITY: Strongly expressed in prostate, liver, kidney breast and penis. Also expressed in pancreas, esophagus, stomach, deodemum, colon, trachea, lung, salivary glands and fallopian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=PSP57;
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                                                                                                                                                           splicing;
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JOINED.
       Beta-microseminoprotein.

By similarity.

By similarity.

Or C-60 with C-70 (By similarity).

Or C-62 with C-69 (By similarity).

By similarity.

By similarity.

KCMDLKGMKHPINSEMQTDNCETCTCYETEISCCTLVSTPV

-> MFLHLMVMYKTTAKESSRRRTASISWWRRRTQKRPVLS

VNG (in isoform PSP57).
                                                                                                                                                        protein sequencing; Polymorphism; Signal
                                                                                                                                                                                                                    space; TAS
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OC Eukary
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OC Cercop
OX NCBLI
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RA Nolet
RT "POOST
RT Bequen
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RA Nolet
RT "Rapid
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EMBL; X57933; CAA41003.1; J
EMBL; X57934; CAA41003.1; J
EMBL; X57935; CAA41003.1; J
EMBL; M92161; AAA36903.1; J
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nolet S., St Louis D., Mbikay M., Chretien M.; "Rapid evolution of prostatic protein PSP94 suggested divergence between rhesus monkey and human cDNAs."; Genomics 9:775-777(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Beta-microseminoprotein precursor (Prostate secreted seminal protein) (Prostate secretory protein PSP94) (PSP-94).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)

    -!- SUBCELLULAR LOCATION: Secreted. Sperm surface (By similari
    -!- SIMILARITY: Belongs to the beta-microseminoprotein family.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Biochim. Biophys. Acta 1089:247-249(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nolet S., Mbikay M., Chretien M.; "Prostatic secretory protein PSP94: sequence in rhesus monkey and human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=91274357; PubMed=2054385; DOI=10.1016/0167-4781(91)90016-F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Macaca mulatta (Rhesus macaque).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=MSMB;
                                                                                                                                                                InterPro; IPRO
Pfam; PF05825;
                                                                                                                                                                                                           InterPro; IPR009041;
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                                                                                                                                                                                                                                S16237; A54663.
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/FTId=VSP_003276.
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Pred. No. 8.9e-62;
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         between the Swiss Institute of Bioinformat
the European Bioinformatics Institute. The
use by non-profit institutions as long
modified and this statement is not removed.
entities requires a license agreement (See
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AJ010155; CAB38123.1; -...
EMBL; AJ010156; CAB38123.1; JOINED.
EMBL; AJ010157; CAB38123.1; JOINED.
GO; GO:0005576; C:extracellular; NAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9490;
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eur. J. Biochem. 264:407-414(1999).
-!- SUBCELLULAR LOCATION: Secreted. Sperm surface (By similarity).
-!- SIMILARITY: Belongs to the beta-microseminoprotein family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              beta-microseminoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Maekinen M., Valtonen-Andre C., Lundwal "New world, but not old world, monkeys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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(Rel. 41, Last )
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oa; Chordata; Craniata; Vertebrata; Euteleostomi;
ia; Primates; Platyrrhini; Callitrichidae; Saguin
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C07A4EB9984B276C CRC64;
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                            TISSUE=Prostate; MEDLINE=97316893; Xuan J.W., Wu D.,
                                                                                                                                                                                                                                                                                                   Beta-microseminoprotein precursor (Prostate protein) (Prostate secretory protein PSP94) Name=NSMB; Synonyms=PSP94; Papio anubis (Olive baboon).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAPAN
                                                                                                                                                                            Cercopithecinae;
NCBI_TaxID=9555;
                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Cercopith
                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
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                                                                                                                             SEQUENCE
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Eur. J. Biochem. 264:407-414(1999).
-!- SUBCELLULAR LOCATION: Secreted. Sperm surface (By similari).
-!- SIMILARITY: Belongs to the beta-microseminoprotein family.
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MEDLINE=99421644; PubMed=10491085;
MEDLINE=99421644; PubMed=10491085;
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Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Saguin
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L; AJ010159; CAB38124.1; JOINED.
GO:0005576; C:extracellular; TAS
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                            PubMed=9174167;
Guo Y., Garde S.,
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28-FEB-2003 (Rel. 41, Last )
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05-JUL-2004 (Rel. 44)
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Eur. J. Biochem. 264:407-414(1999).
-i- SUBCELULLAR LOCATION: Secreted. Sperm surface (By similari-
-i- SIMILARITY: Belongs to the beta-microseminoprotein family.
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MEDLINE=99421644; PubMed=10491085;
Maekinen M., Valtonen-Andre C., Lundwall
"New world, but not old world, monkeys c:
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"Molecular cloning and gene expression analysis of PSP94 (prostate secretory protein of 94 amino acids) in primates.";
DNA Cell Biol. 16:627-638(1997)
DNA Cell Biol. 16:627-638 (1997)
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01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Glycosyl transferase (EC 2.4.1.-).
OrderedLocusNames=CTC02262;
Clostridium tetani.
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"The genome sequence of Clostridium tetani, the causative agent
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SEQUENCE FROM N.A. TISSUE=Oocytes;
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C -|- SIMILARITY: Contains 1 RING-type zinc finger.

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RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Willalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Boutfard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Kzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
A Jones S.J., Marra M.A.;
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Q6NTV1;
Q6NTV1;
05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
MGC81516 protein.
Name=MGC81516;
Eukaryota; Metazoa; Chordata; Craniata; Verambhia; Batrachia; Anura; Mesobatrachia; Xenopodinae; Xenopus.
NCBI_TaxiD=8355;
[1]
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"Genetic and ge
initiative.";
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SECUENCE 391
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PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold B.A., Grouse L.H.,
Shen
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c. Natl. Acad. Sci. U.S.
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Pred. No.
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; Pipidae;
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RESULT 10
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X Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Koheetz T.E.,

Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

A Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Hopkins R.F., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

A Hitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Hakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Krzywinski M.I., Skalska U., Smailus D.B., Schnerch A., Schein J.E.,

A Jones S.J. Marra M.A.,
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Best Local :
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                                                                                                                                    002826;
01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
05-JUL-2004 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART; SM00184; RING; 1.

SMART; SM00184; RING; 1.

PROSITE; PS00518; ZF_RING_2; 1.

PROSITE; PS50089; ZF_RING_2; 1.

Metal-binding; Zinc; Zinc-finger.

Metal-binding; Zinc; Zinc Finger.

SEQUENCE 416 AA; 47023 MW; B711B873CFBAF409 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Klein S., Strausberg R.;
Submitted (APR-2004) to the EMBL/GenBank/DDBJ databas
-! SIMILARITY: Contains 1 RING-type zinc finger.
EMBL; BC068853; AAH68853.1; -.
GO; GO:0000151; C:ubiquitin ligase complex; IEA.
GO; GO:00004842; F:ubiquitin-protein ligase activity;
GO; GO:00008270; F:zinc ion binding; IEA.
GO; GO:0008270; P:protein ubiquitination; IEA.
              Name=NSMB; Synonyms=PSP94;
Sus scrofa (Pig)
Sus scrofa (Pig)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                    MSMB
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                                                                                              Beta-microseminoprotein precursor (Prostate protein) (Prostate secretory protein PSP94)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174; Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and mouse cDNA sequences."; Proc. Natl. Acad. Sci. U.S.A.
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fam; PF00097; zf-C3HC4; 1.
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8; Conserv
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                                                                                                                            35, Created)
35, Last sequence update)
44, Last annotation update)
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Pred. No.
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                    Euteleostomi, Sus.
                                                                                                seminal plasma (TS507).
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                                                                                                                                                                                                                                                                                           CGHR XANMA STANDARD;
p37125;
01-OCT-1994 (Rel. 30, Cre:
01-OCT-1994 (Rel. 30, Lasi
25-OCT-2004 (Rel. 45, Lasi
Chorionicgonadotropic hori
Xanthomonas maltophilia (
SEQUENCE FROM N.A.
STRAIN-ATCC 13637;
MEDLINE=93151816; PubMed=8427582;
mondward S.R., Caticha O.,
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Tanaka T., Itahana K., Andoh N., Takeya T., Sato E.;
"Expression of prostatic secretory protein (PSP)-like
porcine corpus luteum: isolation and characterization
encoding PSP94-like protein.";
Mol. Reprod. Dev. 42:149-156(1995).
                                                                                                                                                                                                        Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
Xanthomonadaceae; Stenotrophomonas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (Son send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; S80724; AAB50711.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-Seminal plasma;
MEDLINE-94161559; PubMed-8117114; DOI-10.1006/abbi.1994.1086;
Rernlund P., Granberg L.B., Roepstorff P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <del>-</del>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9823;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nterPro;
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SIMILARITY: Belongs to the beta-microseminoprotein family similarity: Belongs to the beta-microseminoprotein family
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SUBCELLULAR LOCATION: Secreted. Sper
TISSUB SPECIFICITY: Corpora lutea, m
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VVEKKDP
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                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation update)
hormone-like receptor (CGH-R) (Fragment)
ia (Pseudomonas maltophilia) (Stenotropho)
                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
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By similarity.
By similarity.
By similarity.
Or C-57 with C-67 (By simil Or C-59 with C-66 (By simil By similarity.
By similarity.
Pyrrolidone carboxylic acid
M; ABF33A067A23765E CRC64;
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; Pred. No
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15;
                Carrell D.T.,
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(By similarity).
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D7 01-MAD

D7 01-MAD

D8 Nametain

GN STRAI

RA Gardan

RA Haselli

GC EMBL;

DR HSSP;

DR GO; GO

DR GO

DR GO; GO

DR GO

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                                                                                                Query Match
Best Local S
Matches 7
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-ATCC 49256;
KATPATCA 1V., Ivanova N., Anderson I., Reznik G., Bhatta
Gardner W.L., Mikhailova N., Larsen N., D'Souza M., Walu
Haselkorn R., Overbeek R., Kyrpides N.;
Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q7P7S4
Q7P7S4;
Q7P7S4;
Q7P7S4;
01-MAR-2004 (TrEMBLrel. 26, Created)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation updat
Methionyl-trNa formyltransferase (EC 2.1.2.9)
Name=FNV1719;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Partial nucleotide sequence of the Xanthomonas maltophilia chorionic gonadotropin-like receptor."; Biochem. Biophys. Res. Commun. 190:371-376(1993).
-!- CAUTION: Was originally (Ref.1) reported to be highly similar to the mammalian chorionicgonadotropic hormone receptor, but is not significantly related.
                                                                                                                                                                                                   Transferase SEQUENCE 1
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Bacteria; Fusobacteria; Fusobacterales; Fusobacteriaceae;
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                                                                                                                                                                                                                                                         InterPro; IPR011034;
InterPro; IPR002376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=209882;
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                                                                                                                                                                                                                                                                                 GO:0004479; F:methionyl-tRNA formyltransferase activity;
GO:0016740; F:transferase activity; IEA.
GO:0009058; P:biosynthesis; IEA.
erPro; IPR011034; FMT_C_like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAUTION: The sequence shown here is derived EMBL/GenBank/DDBJ whole genome shotgun (WGS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S26482; S26482.
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34
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                                                                                                   Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 7; Conserv
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  FKKEDCK 40
                                                FKKEDCK 44
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                                                                                                   Conservative
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                                                                                                                                                   10.9%;
                                                                                                Score 7; DB 2; Pred. No. 18; 0; Mismatches
                                                                                                                                                                                                        035FBC96F5538772 CRC64;
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                                                                                                                     DB 2;
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RESULT 13

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Query Match
Best Local Similarity
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AmpliFluor Technology.",
Appl. Environ. Microbiol. 70:136
EMBL; AY174657; AAO46015.1;
EMBL; AY174665; AAO46023.1;
EMBL; AY174668; AAO46023.1;
EMBL; AY174668; AAO46026.1;
EMBL; AY174666; AAO46024.1;
EMBL; AY174666; AAO46024.1;
                                                                                                                                                                                                                                                          Q83U86;
Q83U86;
01-JUN-2003
01-JUN-2003
05-JUL-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q83TZ3 PRELIMINARY; PRT; 143 AA. Q83TZ3; O1-JUN-2003 (TrEMBLrel. 24, Created) O1-JUN-2003 (TrEMBLrel. 24, Last sequence update) O5-JUL-2004 (TrEMBLrel. 27, Last annotation update) Listeriolysin O (Fragment).
                                                                            STRAIN=CECT 935, CECT 940, CTC 1034, CECT 4032, and CECT 936; PubMed=15006755; DOI=10.1128/AEM.70.3.1366-1377.2004; Rodriguez-Lazaro D., Hernandez M., Scortti M., Esteve T., Vazquez-Boland J.A., Pla M.; Vazquez-Boland J.A., Pla M.; "Quantitative Detection of Listeria monocytogenes and Listeria innocua "Quantitative PCR: Assessment of hly, iap, and lin02483 Targets and
                                                                                                                                                                                      NCBI_TaxID=1639;
                                                                                                                                                                                                Listeria monocytogenes.
Bacteria; Firmicutes; Bacillales; Listeriaceae; Listeria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GO; GO:0015485; F:cholesterol binding; GO; GO:0009405; P:pathogenesis; IEA. InterPro; IPR001869; Thiol cytolysin. Pfam; PF01289; Thiol cytolysin; 1. PRINTS; PR01400; TACYTOLYSIN. ProDom; PD007062; Thiol_cytolysin; 1. NON_TER 143 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vazquez-Boland J.A., Pla M.;
Vazquez-Boland J.A., Pla M.;
"Quantitative Detection of Listeria monocytogenes and Listeria
                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                    Name=hlyA;
                                                       Amplifluor Technology.";
Appl. Environ. Microbiol. 70:1366-1377(2004).
                                                                                                                                                                                                                                               Listeriolysin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=1639;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PubMed=15006755; DOI=10.1128/AEM.70.3.1366-1377.2004;
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                            AY174660;
AY174664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AY174666; AAO
P19995; 1M3I.
                                                                                                                                                                                                                                                                                                                                                                                    98
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               143 AA;
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                                                                                                                                                                                                                                                            (TrEMBLrel.
                                                                                                                                                                                                                                                                                       (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
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; AAO46018.1; -.; AAO46022.1; -.; AAO46025.1; -.; AAO46025.1; -.; AAO46019.1; -.
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RESULT 15
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Appl. Environ. Microbiol. 70:1366-1377(2004).

EMBL; AV174662; AAO46020.1;

RSSP; P19995; IMSI.

GO; GO:00015485; F:chholesterol binding; IEA.

GO; GO:0009405; P:pathogenesis; IEA.

RICETPRO; IPRO01869; Thiol cytolysin.

R Pfam; PF01289; Thiol cytolysin.

R PRINTS; PR01400; TACTTOLYSIN.

R ProDom; PD007062; Thiol cytolysin; 1.

R PS00TENCE 143 AA; 15728 MW; 432F4E14DB7F7799 CRC64;
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GO; GO:0015485; F:cholesterol binding; IEA.

GO; GO:0009405; P:pathogenesis; IEA.

InterPro; IPR00189; Thiol_cytolysin.

Pfam; PF01289; Thiol_cytolysin; 1.

PRINTS; PR01400; TACYTOLYSIN.

ProDom; PD007062; Thiol_cytolysin; 1.

NON_TER 143 143

SEQUENCE 143 AA; 15705 MW; 71BD03A20012CSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.

STRALM=CECT 937;

PubMed=15006755; DOI=10.1128/AEM.70.3.1366-1377.2004;

PubMed=Lazaro D., Hernandez M., Scortti M., Esteve T.,

Rodriguez-Boland J.A., Pla M.;

Vazquez-Boland J.A., Pla M.;

"Quantitative Detection of Listeria monocytogenes and Listeria innocua by Real-Time PCR: Assessment of hly, iap, and lin02483 Targets and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q840A3 PRELIMINARY; PRT; 143 AA. Q840A3; O1-UIN-2003 (TrEMBLrel. 24, Created) O1-UN-2003 (TrEMBLrel. 24, Last sequence update) O1-MAR-2004 (TrEMBLrel. 26, Last annotation update) Listeriolysin O (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Listeria monocytogenes.
Bacteria, Firmicutes; Bacillales; Listeriaceae; Listeria.
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GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd

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## ALIGNMENTS

AA017966 standard; peptide;

16 B

### RRESULT 1 AAO17966 ID AAO17 XX AAO1 XX AAO1 XX AAO1 XX Cana XX Cana XX Cana XX Deni XX beni XX beni XX beni XX Fr 15-0 XX 16-0 PR 15-0 PR 25-A XX (PRO XX 16-0 PR 20-A XX (PRO 16-OCT-2000; 2000CA-02321256. 20-AUG-2001; 2001CA-02355334. Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; 30-AUG-2002 AA017966; Garde S, 15-OCT-2001; 2001WO-CA001463 25-APR-2002 Homo sapiens stomach cancer; WO200233090-A2 (PROC-) PROCYON BIOPHARMA INC prostate Panchal CJ, (first entry) secretory protein of 94 amino acids PSP94 analogue hyperplasia; cytostatic. breast cancer; Baijal-Gupta endometrial cancer; ovarian cancer; Σ, Fraser ŗ, Kadhim #55

The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (BSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicoseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention

New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.

WPI; 2002-471401/50.

Claim

2

Page

94; 185pp;

English.

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RESULT 2
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                                                                                                                                                                                                                                                                                                          The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human prostate secretory protein of inhibiting growth of e.g. tumor, prostat gastrointestinal, breast, endometrial, a
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Pred. No. 1.8
D; Mismatches
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Pred. No.
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1.8e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acids, useful for adenocarcinoma, stomach,
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                                                                                                                                                                  Gaps
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Best Local
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Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinom; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                        Human prostate
                                                                                                                                                                                                                                                                                                   AAO17969 standard; peptide; 19
                                                                                                                                                                                             30-AUG-2002
                                                                                                                                                                                                                                                   AA017969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 2; Page 94; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New human prostate secretory protein of 94 amino acids, useful inhibiting growth of e.g. tumor, prostatic adenocarcinoma, storgastrointestinal, breast, endometrial, and ovarian cancers.
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20-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-APR-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
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2001CA-02355334.
                                                                                                                                                                                           (first entry)
                                                                                                                                     secretory protein of 94 amino
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Pred. No.
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adenocarcinoma;

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DE Huma
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Best Local S
Matches 16
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                                                                                                                                                                               beta-microseminoprotein; human se prostate secretory protein of 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
            16-OCT-2000;
20-AUG-2001;
                                                                                                                                Homo sapiens
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                                                   15-OCT-2001; 2001WO-CA001463
                                                                                                       WO200233090-A2
                                                                                                                                                       benign prostate
                                                                                                                                                                                                            Cancer; human;
                                                                                                                                                                                                                                                                                            AA017970
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                       stomach cancer;
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            2000CA-02321256.
2001CA-02355334.
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                                                                                                                                                         hyperplasia;
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Pred. No.
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                                                                                                                                                                                seminal plasma inhibin; analogue;
94 amino acids; prostatic adenocarcinoma;
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RESULT 6
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                                                                                                     New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
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                                                      Claim 2;
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-OCT-2001; 2001WO-CA001463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200233090-A2
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16; Conserv
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                                                                                                                                                                                                                                                                                                                     PROCYON BIOPHARMA INC
                                                      Page 95; 185pp; English
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Pred.
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                                                                                                                                                                                                                                                                    Fraser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 5;
                                                                                                     amino acids, useful for adenocarcinoma, stomach ovarian cancers.
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present invention relates to analogues of the

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RESULT 7
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Best Local S
Matches 16
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Best Local Similarity
                                                                                                                 The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamiroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                          New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                 Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-OCT-2000;
20-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarci stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-OCT-2001; 2001WO-CA001463
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2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PSP94; prostatic inhibin protein;
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     100.0%;
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RESULT 9
AAO17974
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AAO17974 standard; peptide;

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AAO17974;

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RESULT 8
AAO17973
ID AAO1
XX Canc
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XX Beni
XX Homo
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PF 15-C
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XX 25-A
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Best Local
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                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAO17973 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 2; Page 96; 185pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                      ΑĀ,
                                                                                                           Conservative
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                                                                                                                                                             DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acids, useful for adenocarcinoma, stomach ovarian cancers.
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                                                                                                                                                          Length 23
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RESULT 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamincoseminoprotein (bets MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                  Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prostate secretory protein of 94 amino acids; prostatic analogue; stomach cancer; breast cancer; endometrial cancar.
                                                                                                                                           Human
                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 24 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                      30-AUG-2002
                                                                                                                                                                                                                            AAO17975 standard; peptide; 25
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                             Homo sapiens
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2001CA-02355334.
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                                                       hyperplasia; cytostatic.
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RESULT 11
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                                                                                                                                                                                                                                  beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human prostate secretory protein of 94 amino acids, useful inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stongastrointestinal, breast, endometrial, and ovarian cancers.
WPI; 2002-471401/50
                        Garde S,
                                                                         16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
                                                                                                                                                                                                                                                                         Cancer; human;
                                                                                                                                                                                                                                                                                                Human prostate secretory protein of 94 amino acids PSP94 analogue #65.
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          present sequence is an analogue of the invention
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                        Panchal CJ,
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              The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     beta-microseminoprotein; prostatic inhibin protein; PIP; HSPI; beta-MSP; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                 New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
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                                                                                                                                                                                                                   Claim
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                                                                                                                                                                                                        The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 2; Page 98; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
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20-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Garde
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        benign prostate hyperplasia; cytostatic.
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16; Conserv
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16; Conservative
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       SEWOTDNCETCTCYET
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                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secretory protein of 94 amino acids PSP94 analogue
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                                                                                 100.0%;
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Pred. No. 2
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2.8e-1
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                                                                                                         Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
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Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP,
                                                         Human prostate secretory protein of 94 amino acids PSP94 analogue #69
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                        30-AUG-2002
                                                                                                                                                                                                                                  AAO17980 standard; peptide;
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                                                                                                                                                                                                                                                                                                                                        New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach, gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                         Sequence 30 AA;
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145.592 Million cell updates/sec
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/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
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US-09-513-999C-7807
US-08-460-209-17
US-08-461-403-7
US-09-949-016-7517
US-09-961-403-7
US-09-962-702A-8
US-09-562-702A-8
US-09-562-702A-6
US-09-562-702A-6
US-09-562-702A-6
US-09-949-016-5937
US-09-949-016-5937
US-08-481-988A-24
US-08-481-988A-24
US-08-154-712B-24
US-09-947-952A-24
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US-09-947-952A-24
US-09-947-953A-24
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Sequence 7807, Ap
Sequence 17, Appl
Sequence 17, Appl
Sequence 7517, Ap
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| 60 - Sh  | US-09-265-540B-4 US-09-217-364A-13 US-08-460-309-15 US-08-460-309-15 US-08-460-309-16 US-08-165-077-15 US-08-155-077-15 US-08-155-077-15 US-09-962-357-8 US-09-962-357-8 US-09-902-540-14527 US-09-902-540-14527 US-09-248-796A-20514 US-09-248-796B-39 US-09-248-7978B-39 US-09-248-7978B-39 US-09-270-767-46136 US-09-270-767-46136 US-09-377-215-2 US-09-37-215-2 US-09-38-484-933B-14 US-08-484-933B-14 US-08-484-933B-14 US-08-484-938B-14  | 716  | 716  | 689  | 454                 | 400  | 396  | 392 | 362 | 316                 | 315                 | 261 | 243           | 243           | 243           | 243 | 231 | 231 |
|  | -09-265-540B-4 -09-309-15 -08-460-309-15 -08-460-309-15 -08-125-077-15 -08-125-077-16 -09-962-357-8 -09-962-357-8 -09-962-357-8 -09-962-357-8 -09-962-357-8 -09-962-357-8 -09-962-357-8 -09-962-357-8 -09-248-796A-20514 -09-248-796B-39 -09-248-796B-39 -09-248-796B-39 -09-248-796B-39 -09-248-796B-39 -09-248-796B-39 -09-248-796B-39 -09-270-767-46136 -09-270 | N    | N    | 4    | 4.                  | 4.   | 4.   | 4.  | 4   | 4.                  | 4                   | 4.  | N             | N             | N             | N   | 4   | 4.  |
|  |  |      | 80-  | -09  | US-09-134-000C-5977 | -09  | -09  | -09 | -09 | US-09-543-681A-5873 | US-09-902-540-14527 | -09 | -08-125-077-1 | -08-125-077-1 | -08-460-309-1 | -08 |     |     |

ALIGNMENTS

#### ; TOPOLOGY: li; ; MOLECULE TYPE: ; HYPOTHETICAL: I US-07-899-535A-1 RESULT 1 US-07-899-535A-1 Sequence 1, Appli Patent No. 542801 Query Match Best Local S TELEFAX: 703-415-0962 TELEX: 24 8614 INFORMATION FOR SEQ ID NO: CLASSIFICATION: 514 ATTORNEY/AGENT INFORMATION: NAME: Loud, George A. REGISTRATION NUMBER: 25,814 REFERENCE/DOCKET NUMBER: S&B TELECOMMUNICATION INFORMATION: TELEPHONE: 703-415-0960 GENERAL INFORMATION: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/07/899,535A FILING DATE: 16-UN-1992 SEQUENCE CHARACTERISTICS: LENGTH: 94 amino acide TYPE: amino acid APPLICANT: Sheth, Anil R. APPLICANT: Garde, Seema APPLICANT: Panchal, Schandra J. APPLICANT: Panchal, Constant Preparations For TITLE OF INVENTION: Pharmaceutical Preparations For TITLE OF INVENTION: Inhibiting Tumours Associated With Prostate TITLE OF INVENTION: Adenocarcinoma, Stomach Cancer and Breast Cancer. CORRESPONDENCE ADDRESS: NUMBER OF SEQUENCES: STATE: V COUNTRY: LENGTH: 94 amino acids TYPE: amino acid STRANDEDNESS: single TELEPHONE: 703-415-0962 STREET: 2001 Jet CITY: Arlington ADDRESSEE: 22202 Virginia Application B: Mr. George Loud 2001 Jefferson Davis Highway, Suite 306 100.0%; Score 16; ilarity 100.0%; Pred. No. Conservative 0; Mismatch U.S.A. linear . protein US/07899535A 25,814 S&B-A835 DB 1; Length 94;

Matches

Local Similarity hes 16; Conserv

Mismatches

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; OTHER INFORMATION: score 9
; OTHER INFORMATION: seq VVIFATFVTLCNA/SC
US-09-513-999C-7807
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Best Local
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SEQ ID NO 7807
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FILE REFERENCE: 59.US2.REG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Dumas Milne Edwards, J.B. APPLICANT: Duclert, A. APPLICANT: Giordano, J.Y.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: SIGNAL
         FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Homo sapiens
                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/460,309
                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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APPLICANT: Leivo, Ilmo
TITLE OF INVENTION: Nuc
TITLE OF INVENTION: Pra
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                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                               CITY: San Diego
STATE: California
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4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                USA
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21-SEP-1994
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Pred. No.
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thes 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 114;
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US-08-125-077-17
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Best Local Similarity
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TOPOLOGY:
US-08-460-309-17
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APPLICANT: Engval
APPLICANT: Leivo,
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                            APPLICATION NUMBER: US PCI/US JAPPLICATION NUMBER: US PCI/US JAPPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/472,319
                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                 REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA
TELECOMMUNICATION INFORMATION:
                                                                               APPLICATION NUMBER: US 07/
APPLICATION NUMBER: US 07/
PILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
                                                                                                                                                 APPLICATION NUMBER: US 0 FILING DATE: 30-JAN-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                     CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Engvall, Eva
APPLICANT: Leivo, Ilmo
TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin
TITLE OF INVENTION: Fragments and Uses Thereof
NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 241 amino acids
TYPE: amino acid
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FILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
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                   TELEPHONE:
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: California
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: (619) 535-9001
(619) 535-90
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Conservative (
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                                                                                                                                       US 07/919,951
                                                                                                                                                                                                                                        US PCT/US 94/10730
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la Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                       US/08/125,077
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SEQUENCE CHARACTERISTICS:

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US-09-961-403-7
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US-09-949-016-7517
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Best Local Similarity 100.0%;
Matches 6; Conservative 0
                                 SOFTWARE: PatentIn Ver.
SEQ ID NO 7
LENGTH: 3070
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                           Sequence 7, Application US/09961403 Patent No. 6780594
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Patent No. 6812339
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APPLICANT:
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ORGANISM: Homo sapiens 09-961-403-7
                                                                                                      CURRENT FILING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 15
                                                                                                                                       FILE REFERENCE: SCH-1789
CURRENT APPLICATION NUMBER: US/09/961,403
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SOFTWARE: FastSEQ for Windows Version 4.0
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PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                      APPLICANT: HE-STUMPP, HOLGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tent No.
                                                                                                                                                                         PPLICANT: WINTERHAGER, ELKE
PPLICANT: REGIDOR, PEDRO
PPLICANT: REGIDOR, PEDRO
PPLICANT: SCOTTI, SIMONE
ITLE OF INVENTION: METHOD FOR IN VITRO DIAGNOSIS OF ENDOMETRIOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 100.
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KRAETZSCHMAR, JOERN
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Pred. No.
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; ORGANISM: Homo sapiens
US-09-562-702A-8
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                                                              ; ORGANISM: Homo sapiens
US-09-562-702A-4
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                                                                                                      SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 4
LENGTH: 3089
Query Match 37.5%; Sometimes Similarity 100.0%; Matches 6; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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Patent No. 6632790
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Best Local
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Patent No. 6632790
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Best Local :
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CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
PRIOR APPLICATION NUMBER: 60/143,289
                                                                                                                                                                                                       PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
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                                                                                                                                                            NUMBER OF SEQ ID NOS:
                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/131,720 PRIOR FILING DATE: 1999-04-30
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                                                                                               TYPE: PRT
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Score 6; DB 4; pred. No. 53; O; Mismatches
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Pred. No. 53;
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NCETCT

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389 NCETCT 394

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CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/125,945
PRIOR FILING DATE: 1999-09-24
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR FILING DATE: 1999-04-30
NUMBER OF SEQ ID NOS: 32
SOFTWARE: Patentin Ver. 2.0
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US-09-562-702A-2
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PRIOR FILING DATE: 1999-09-24
PRIOR PELICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR PELICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR PELICATION NUMBER: 60/131,720
PRIOR FILING DATE: 1999-04-30
NUMBER OF SEQ ID NOS: 32
SOFTWARE: Patentin Ver. 2.0
  Query Match 37.5%; Score 6; DB 4; Best Local Similarity 100.0%; Pred. No. 53; Matches 6; Conservative 0; Mismatches
                                                                                                                                                                                      SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Yurchenco, Peter
TITLE OF INVENTION: Laminin 2 and Methods for Its Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 37.5%; Score 6; DB 4; Best Local Similarity 100.0%; Pred. No. 53; Matches 6; Conservative 0; Mismatches
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LENGTH: 3110
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Patent No. 6632790
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Patent No. 6632790
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                                                                                                               LENGTH: 3110
TYPE: PRT
ORGANISM: Homo sapiens
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CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
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RESULT 13
US-09-949-016-5937
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US-09-917-254-86
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT ; ORGANISM: Homo sapiens US-09-561-709B-7
                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Mutter, George
APPLICANT: Baak, January
TITLE OF INVENTION: Prognostic Classification of Breast Cancer
FILE REFERENCE: B0801/7224 (GRV)
CURRENT APPLICATION NUMBER: US(09/917,254
CURRENT FILING DATE: 2001-07-27
PRIOR FILING DATE: 2000-07-28
PRIOR FILING DATE: 2000-07-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Brunken, William
TITLE OF INVENTION: LAMININS AND USES THEREOF
FILE REFERENCE: 10287-060001
CURRENT APPLICATION NUMBER: US/09/561,709B
CURRENT FILING DATE: 2000-05-01
PRIOR APPLICATION NUMBER: US 09/168,949
PRIOR FILING DATE: 1998-10-09
PRIOR FILING DATE: 1998-10-09
PRIOR APPLICATION NUMBER: US 60/061,609
PRIOR APPLICATION NUMBER: US 60/061,609
PRIOR FILING DATE: 1997-10-10
NUMBER OF SEQ ID NOS: 13
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Sequence 5937, Application US/09949016 Patent No. 6812339 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 86
                                                                                                                                                                                                                            Matches
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                                                                                                                                                                                                                                                                     Query Match
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Best Local Similarity 100.0%; Pred. No. 53;
Matches 6; Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Burgeson, Robert
APPLICANT: Champliaud, Marie-France
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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Local Similarity 100.0%; Pred. No. 53, 
hes 6; Conservative 0; Mismatches
                                                                                                                                           389 NCETCT
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Koch, Manuel
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US-09-949-016-5937
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SEQ ID NO 5937
                                                                                              APPLICATION NUMBER: US/08/460,309
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10730
FILING DATE: 21-SEP-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/472,319
FILING DATE: 30-JAN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/919,951
APPLICATION NUMBER: US 07/919,951
FILING DATE: 27-UUL-1992
ATTORNEY/AGENT INFORMATION:
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Best Local Similarity
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PRIOR TILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Engvall, Eva
APPLICANT: Leivo, Ilmo
TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin
TITLE OF INVENTION: Fragments and Uses Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Campbell
TELECOMMUNICATION INFORMATION: TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY:
STATE:
                                      NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA 9721
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4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
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100.0%; Pred. No.
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Best Local Similarity
Matches 6; Conserve
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                                                             Query Match
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Patent No. 5872231 5840863
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                                                                                                                                                                          TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                   PILING LA...
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US PCT/US 94/10730
APPLICATION NUMBER: 21-SEP-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/125,07
                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/919,951
FILING DATE: 27-JUL-1992
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin TITLE OF INVENTION: Fragments and Uses Thereof NUMBER OF SEQUENCES: 23
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                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                              Local Similarity hes 6; Conserv
                                                                                                                            LENGTH:
                                                                                                                                                                                                                                                 NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,81
                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
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                                                                                                              TOPOLOGY:
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   7 NCETCT 12
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4370 La Jolla Village Drive,
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                                  Conservative
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                                               37.5%; Score 6; 100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                US 07/472,319
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k; Pred. No. 53;
0; Mismatches
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lo. 53;
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389 NCETCT 394

Search completed: May 4, 2005, 14:37:23 Job time : 9.20364 secs

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GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.

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Result
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is derived by analysis of the total score distribution.
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length: 2000000000
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Match
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1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US06_NEW PUB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*

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/cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
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US-09-977-406A-60

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US-09-977-406A-64

US-09-977-406A-66

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US-09-977-406A-69

US-09-977-406A-69
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### ALIGNMENTS

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CURRENT APPLICATION NUMBER: US/09/977,406A .
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: Patentin version 3.1
SEQ ID NO 59
LENGTH: 16
RESULT 2
US-09-977-406A-60
; Sequence 60, Application US/09977406A
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; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
US-09-977-406A-59
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US-09-977-406A-59
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Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
FILE REFERENCE: 06508-030-US-03
                                                                                                                                                                                        Query Match 100.0%; 9
Best Local Similarity 100.0%; 1
Matches 16; Conservative 0;
                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Artificial Sequence
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                                                                                                                                    SEWOTDNCETCTCYET 16
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Pred. No.
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US-09-977-406A-61
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                                  GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
FILE REFERENCE: 06508-030-US-03
                                                                                                          Sequence 62, Application US/09977406A Publication No. US20030170220A1
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Best Local Similarity
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LENGTH: 18
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                  -09-977-406A-62
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LENGTH: 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR FILING DATE: 2001-08-20
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PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
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NUMBER: US/09/977,406A: 2001-10-15
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                                                    AND METHODS
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US-09-977-406A-62
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Best Local
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Publication No.
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PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: Patentin version 3.1
                                                                                                             CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
                                                                                                                                                APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
FILE REPERENCE: 06508-030-US-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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CURRENT FILING DATE: 2001-10-15
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND
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PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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US-09-977-406A-65
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                                                                                                SOFTWARE: PatentIn version 3.1 SEQ ID NO 66
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APPLICANT: PROCYON BIOPHARMA INC.
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LENGTH: 22
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Best Local Similarity
                                                                                                                                                       TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING FILE REFERENCE: 06508-030-US-03 CURRENT EPELICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15 PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR PILING DATE: 2000-10-16 PRIOR PILING DATE: 2000-10-16 PRIOR PILING DATE: 2000-08-20 PRIOR PILING DATE: 2001-08-20
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PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
                                                                                                                                       NUMBER OF SEQ ID NOS: 92
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                        ORGANISM: Artificial Sequence FEATURE:
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                                                               TYPE: PRT
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ORGANISM: Artificial Sequence
OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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Pred. No. 1.1
); Mismatches
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Pred. No.
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Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn version 3.1
SEQ ID NO 67
LENGTH: 24
                                                                                   Query Match
Best Local
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SEQ ID NO 68
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CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
PRIOR FILING DATE: 2001-08-20
                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
                                                                                                                               TYPE: PRT
ORGANISH: Artificial Sequence
FEATURE:
OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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                                                                                   Similarity
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                              SEWOTDNCETCTCYET 16
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                                                                   Conservative
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Pred. No.
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                                            RESULT 13
US-09-977-406A-71
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US-09-977-406A-70
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US-09-977-406A-69
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SEQ ID NO 70
LENGTH: 27
GENERAL INFORMATION:
            Sequence 71, Application US/09977406A Publication No. US20030170220A1
                                                                                                                                                                                                          Query Match
Best Local Similarity
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LENGTH: 26
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CURRENT FILING DATE: 2001-10-15
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
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PRIOR FILING DATE: 2000-10-16
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                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: PROCYON BIOPHARMA INC.

TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING
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Pred. No.
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Pred. No.
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RESULT 15
US-09-977-406A-73
; Sequence 73, Application US/09977406A
; Publication No. US20030170220A1
; GENERAL INFORMATION: BIOPHARMA INC.
; APPLICANT: PROCYON BIOPHARMA INC.
; TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
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; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
US-09-977-406A-72
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US-09-977-406A-72
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; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
US-09-977-406A-71
                                                                                                                                                                                                                                                                                                                                                Matches
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Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
                                                                                                                                                                                                                                                                                                                                                                                      Query Match
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CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15 PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR FILING DATE: 2001-08-20 NUMBER OF SEQ ID NOS: 92
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PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
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CURRENT APPLICATION N
CURRENT FILING DATE:
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
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PRIOR APPLICATION NUMBER: CA 2,355,334

PRIOR PILING DATE: 2001-08-20

NUMBER OF SEQ ID NOS: 92

SOFTWARE: Patentin version 3.1

SEQ ID NO 73

LENGTH: 30

TYPE: PRT
ORGANISM: Artificial Sequence
PEATURE: ORTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)

US-09-977-406A-73

Query Match
Best Local Similarity 100.0%; Score 16; DB 10; Length 30;
Best Local Similarity 100.0%; Pred. No. 1.5e-11;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Search completed: May 4, 2005, 15:24:08

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|   | T06180             | JQ0410             | C86155             | JN0131             | S46538             | S38875             | T43318             | G84785             | S49491             | S46540             | C97058             | S41758             | 866351             | F64577             | C55973             | 150505            |
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# ALIGNMENTS

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| A;Molecule type: protein A;Residues: 21,'X',23-34 <wei> A;Rolet, S.; Mbikay, M.; Chretien, M.  Biochim. Biophys. Acta 1089, 247-249, 1991 A;Title: Prostatic secretory protein PSP(94): gene organization and promoter sequence in A;Reference number: S16237; MUID:91274357; PMID:2054385 A;Accession: S16238 A;Molecule type: DNA</wei></wei></wei></wei></wei> | A;Molecule type: protein A;Residues: 21-112,'G',114 <sei> R;Residues: 21-112,'G',114 <sei> R;Weiber, H.; Andersson, C.; Murne, A.; Rannevik, G.; Lindstroem, C.; Lilja, H.; Fernlund, Am. J. Pathol. 137, 593-604, 1990 A;Title: Beta microseminoprotein is not a prostate-specific protein. A;Reference number: A60673; MUID:90379237; PMID:2205099 A;Accession: A60673; MUID:90379237; PMID:2205099</sei></sei> | A;Molecule type: protein A;Molecule type: protein A;Residues: 21-58,'pT',61-113 <aki> A;Residues: 21-58,'pT',61-113 <aki> R;Seidah, N.G.; Arbatti, N.J.; Rochemont, J.; Sheth, A.R.; Chretien, M. PEBS Lett. 175, 349-355, 1984 A;Title: Complete amino acid sequence of human seminal plasma beta-inhibin. Prediction o. A;Reference number: A30984; MUID:85004133; PMID:6434350 A;Accession: A30984</aki></aki> | A;Accession: A26451 A;Molecule type: mRNA A;Residues: 1-114 <mbi> A;Cross-references: GB:M15885; NID:g338414; PIDN:AAA36635.1; PID:g338415 A;Cross-references: GB:M15885; NID:g338414; PIDN:AAA36635.1; PID:g338415 A;Akiyama, K.; Voshioka, Y.; Schmid, K.; Offner, G.D.; Troxler, R.F.; Tsuda, R.; Hara, M. Biochim. Biophys. Acta 829, 288-294, 1985 A;Title: The amino acid sequence of human beta-microseminoprotein. A;Reference number: A29777; MUID:85199974; PMID:3995056</mbi> | A;Accession: A3456/ A;Accession: A3456/ A;Cession: A7456/ A;Cession: Accession: Accession: A;Cestatus: not compared with conceptual translation A;Molecule type: DNA A;Molecule type: DNA A;Residues: 1-114 <gre> A;Cross-references: UNIPROT:P08118; GB:M34376; NID:g514370; PIDN:AAA59871.1; PID:g514372 A;Mbikay, M.; Nolet, S.; Fournier, S.; Benjannet, S.; Chapdelaine, P.; Paradis, G.; Dube DNA 6, 23-29, 1987 A;Title: Molecular cloning and sequence of the cDNA for a 94-amino-acid seminal plasma p A;Reference number: A26451; MUID:87161231; PMID:3829888</gre> | RESULT 1  A34567 beta-microseminoprotein precursor - human N;Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma pro C;Species: Homo sapiens (man) C;Pate: 13-Jul-1990 #sequence revision 13-Jul-1990 #text change 09-Jul-2004 C;Accession: A34567; A26451; A29777; A30984; A60673; S16238; I52682 R;Green, C.B.; Liu, W.Y.; Kwok, S.C.M. Blochem. Biophys. Res. Commun. 167, 1184-1190, 1990 A;Title: Cloning and nucleotide sequence analysis of the human beta-microseminoprotein grafteence number: A34567; MUID:90211299; PMID:2322265 |

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unknown protein [imported] - Arabidopsis thaliana (;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001
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C;Accession
R;Saraiva,
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A; Residues: 1-326 <SAR>
A; Cross-references: UNIPROT: Q9RN68; GB: AF186393;
A; Experimental source: ATCC 27774
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A;Title: Sequencing the gene encoding Desulfovibrio desulfuricans ATCC 27774 nine-heme A;Reference number: JC7094; MUID:99400423; PMID:10471375
A;Accession: JC7094
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A;Cross-references: GDB:128042; OMIM:157145
A;Cross-references: GDB:128042; OMIM:157145
A;Map position: 10q11.2-10q11.2
A;Introns: 1/3; 37/1; 72/2
C;Superfamily: seminal plasma protein
C;Keywords: semen
F;1-20/Domain: signal sequence #status pred:
F;21-114/Product: seminal plasma protein #si
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C;Species: Desulfovibrio desulfuricans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change
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Cancer Lett. 74, 91-99, 1993
A;Title: Decreased expression of prostatic secretory protein
A;Reference number: I52682; MUID:94115955; PMID:7506990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues: 1-114 < RES>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Residues: 1-114 <NOL>
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21-114/Product: seminal plasma protein #status experimental <MAT>
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100.0%; Pred. No. 1.;
tive 0; Mismatches
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                                                                                                                     S.; White, Creasy, T.H.;
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                                          Khaykin, E.; Kim,
Maiti, R.; Marzia
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                                                                                                                     O.; Alonso, Dewar, K.
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                        Query Match
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C;Genetics:
A;Gene: F28P5.4
A;Map position:
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N;Alternate names: antibacterial 4K peptide
C;Species: Leiurus quinquestriatus hebraeus
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 09-Jul-2004
C;Accession: JN0613
                                            A; Molecule type:
A; Residues: 1-38
                                                                                                      R; Cociancich, S.; Goyffon, M.; Bontems, F.;
Biochem. Biophys. Res. Commun. 194, 17-22,
A; Title: Purification and characterization
A; Reference number: JN0613; MUID: 93326112;
                                                                                                                                                                     R; Cociancich, S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Introns: 46/1; 96/1; 124/3; 165/1; 223/3; 282/3; 340/3; 381/1; 485/3; 516/2; 549/1; 624
C;Superfamily: yeast 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase; 1-phosphatesphodiesterase domain Y homology
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R;Wohldmann, P.; Beck, C.
submitted to the EMBL Data Library, September 1997
submitted to the EMBL Data Library, September 1997
submitted to the EMBL Data Library, September 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical protein K10F12.3 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 29-Oct-1999 #8equence_revision 29-Oct-1999 #text_change 28-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
A;Accession: B96744
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-601 <570>
                                                                                       A; Accession: JN0613
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A; Residues: 1-895 < WOH>
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A;Reference number: Z21157
A;Accession: T32374
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                    Cross-references: UNIPROT:P41965
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DB

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transcription factor isl-2a (clone S3) - chinook salmon N,Alternate names: insulin enhancer-binding protein isl-2a; islet-2a protein C;Species: Oncorbynchus tschawytscha (chinook salmon) C;Date: 14-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 15-Oct-1999 C;Accession: S52089
                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-reterences: various denosyltransferase C;Superfamily: methionine adenosyltransferase C;Keywords: S-adenosylmethionine; transferase
                R;Gong, Z.; Hew, C.L.
Biochim. Biophys. Actta 1260, 349-354, 1995
A;Title: Several splicing variants of isl-1 like genes in A;Reference number: S52089; MUID:95178560; PMID:7873614
A;Accession: S52089
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R;Bulet, P.; Cociancich, S.; Reuland
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A;Residues: 1-83 <CER>
A;Cross-references: UNIPROT:Q39465; EMBL:X85252; NID:g1808591; PIDN:CAA59508.1;
C;Superfamily: methionine adenosyltransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Accession: S53116
R;Cervantes, E.
submitted to the EMBL Data Library, March 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               methionine adenosyltransferase (EC 2.5.1.6) - chickpea
N;Alternate names: S-adenosylmethionine synthetase
C;Species: Cicer arietinum (chickpea, garbanzo)
C;Date: 08-Jul-1995 #sequence_revision 21-Jul-1995 #tex
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A;Accession: S27242
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A; Accession: S53116
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C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
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A; Residues: 1-38 < BUL>
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100.0%; Pr
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k; Pred. No. 22;
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A;Cross-references: UNIPROT:P75480; A;Note: the nucleotide sequence was
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R;Himmelreich, R.; Hilbert, H.; Plagens, H.; Pirkl, E.; Li, B.C.; F Mucleic Acids Res. 24, 4420-4449, 1996
A;Title: Complete sequence analysis of the genome of the bacterium A;Reference number: $73327; MUID:97105885; PMID:8948633
                                                                                                                                                                                                                                                                     C;Species: Mycoplasma pneumoniae
A;Variety: ATCC 29342
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999
C;Accession: S73864
                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
S73864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;NOTE: .... R;NOlet, S; St-Louis, D; MD1kay, M, , .... Genomics 9, 775-777, 1991
Genomics 9, 775-777, 1991
A;Title: Rapid evolution of prostatic protein PSP-94 suggested A;Title: Rapid evolution of protein PSP-94 suggested A;Title: Rapid evolution evolutio
A; Molecule type: DNA
A; Residues: 1-119 <HIM>
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Biochim. Biophys. Acta 1089, 247-249, 1991
A;Title: Prostatic secretory protein PSP(94): gene organization A;Reference number: S16237; MUID:91274357; PMID:2054385
A;Accession: S16237
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N;Alternate names: prostatic secretory protein PSP94
C;Species: Macaca mulatta (rhesus macaque)
C;Species: Macaca mulatta (rhesus macaque)
Tin-1995 #sequence_revision 02-Jun-1995 #text_change
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C;Superfamily: seminal plasma protein
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                                                              A; Status: preliminary; nucleic
                                                                                                 A; Accession: S73864
                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein H10_orf119 -
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A; Residues: 1-114 < NOL>
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Best Local
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ce: clone S3
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EMBL:AE000052; GB:U00089; NID:g1674223; PIDN:AAB96186 submitted to the EMBL Data Library, November 1996

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C;Genetics:
A;Genetic code:
C;Superfamily: !
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A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H. A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, Ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A;Accession: C86241
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C86241
                                                                                                                                                         A;Map
                                                                                                                                                                                                                                      A;Molecule type: DNA
A;Residues: 1-167 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
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A;Title: The complete genome sequence of Escherichia coli K-12.
A;Reference number: A64720; MUID:97426617; PMID:9278503
A;Accession: G65019
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.A.; Rose, D.J.; Mau, B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hypothetical protein b2448 - Escherichia coli (strain K-12)
(;Species: Escherichia coli
C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004
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                                                                                             Query Match
Best Local
                                                                                                                                                                                                Genetics:
                                                                                                                                                                                                      Cross-references: UNIPROT:Q9SAC5; GB:AE005172; NID:g4874271; PIDN:AAD31336.1; GSPDB:GN;
                                                                                                                                                                                                                                                                               Status: preliminary
                                                                          Matches
                                                                                                                                                                               Gene: T16B5.9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47
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S76790
                   C;Accession: 876790

R;Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miyajima, N.; R;Kaneko, T.; Sato, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasuda, DNA Res. 3, 109-136, 1996
                                                                                         hypothetical protein - Synechocystis sp. (strain PCC 6803)
C;Species: Synechocystis sp.
A;Variety: PCC 6803
C;Date: 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                      В
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A; Title: Sequence
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A; Experimental source: strain Nigg C; Genetics:
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A;Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39.
A;Reference number: A81500; MUID:20150255; PMID:10684935
                                                                                                                                                                                                                                                                                                                                                                                                                       conserved hypothetical protein TC0662 [imported] - Chlamydia muridarum (strain Nigg) C;Species: Chlamydia muridarum, Chlamydia trachomatis MoPn C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-246 < TET>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Genetics:
A;Gene: alr4082
                                                                                                                                                                                                             A; Cross-references: UNIPROT: Q9PK11;
                                                                                                                                                                                                                                                    A; Molecule type:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      transposase alr4082 [imported] - Nostoc sp. (strain PCC 7120) C;Species: Nostoc sp. PCC 7120 C;Species: Nostoc sp. PCC 7120 A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120 C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004 C;Accession: AC2316
                                                                                                                                                                                                                                                                           A;Status: preliminary
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A;Molecule type: DNA
A;Residues: 1-210 <KUR>
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Matches 5; Conserv
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198
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                                   12 TCYET 16
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Tabata, S
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analysis of the genome of the unicellular cyanobacterium Synechocystis

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A;Reference number: $74322; MUID:97061201; PMID:8905231
A;Accession: $76790
A;Status: nucleic acid sequence not shown; translation not shown
A;Accession: DNA
A;Residues: 1-295 < KANS
A;Residues: 1-295 < KANS
A;Cross-references: UNIPROT:P74594; EMBL:D90916; GB:AB001339; NID:91653715; PIDN:BAA1870
A;Cross-references: UNIPROT:P74594; EMBL:D90916; GB:AB001339; NID:91653715; PIDN:BAA1870
A;Cross-references: UNIPROT:P74594; EMBL:D90916; GB:AB001339; NID:91653715; PIDN:BAA1870
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Proteomics 2:112-120(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           smokers and smokers using two-dimensional
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                                                                                                                                                                            GO:0005615; C:extracellular
GO:0005634; C:nucleus; TAS.
erPro; IPR008735; PSP94.
                                                                                                                                                                                                                                                ; A34567; A34567.
; G01730; G01730.
ew; HGNC:7372; MSM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tube. PSP94 is expressed in lung and Dredbe, whered found in kidney and bladder.
MISCELLANGROUS: Specific receptors for this protein spermatozoa and in the prostate.
SIMILARITY: Belongs to the beta-microseminoprotein CAUTION: Was originally thought to inhibit the secr
                                                                                                                                                                                                                                                                                                    L; M34373; AAA59871.1; U; M34374; AAA59871.1; U; M34375; AAA59871.1; U; M34375; AAA59871.1; U; M15885; AAA36635.1; X57928; CAAA41002.1; U; X57930; CAAA41002.1; U; X57931; CAAA41002.1; U; X57931; CAAA41002.1; U; X57931; CAAA4102.1; U; X57931; CAAA4102.1; U; X57931; CAAA41052.1; U; X57931; AAA835556.1; U; W22178; AAA835556.1; U78976; AAB37355.1; U78976; AAB37355.1; AAA635577.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=PSP57;
IsoId=P08118-2; Sequence=VSP 003275, VSP 003276;
IsoId=P08118-2; Sequence=VSP 003275, VSP 003276;
IISSUE SPECIFICITY: Strongly expressed in prostate, liver, kidney breast and penis. Also expressed in pancreas, esophagus, stomach, breast and penis. Also expressed in pancreas, esophagus, stomach, deodenum, colon, trachea, lung, salivary glands and fallopian deodenum, colon, trachea, lung, salivary glands and fallopian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pituitary cells.
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Event=Alternative spl
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M34373; AAA59871.1;
M34374; AAA59871.1;
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                                                                                                                                                    Direct
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immunohistochemical localization.";
Biol. 27:603-611(1995).
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s in human nasal lavage fluid
                                     Beta-microseminoprotein.
By similarity.
By similarity.
Or C-60 with C-70 (By similarity).
Or C-60 with C-69 (By similarity).
Or C-62 with C-69 (By similarity).
By similarity.
KCMDLKGNKIPINSEWQTDNCETCTCYETEISCCTLVSTPV
-> MFLHLWVMTKTTAKESSRRRTASISWWRRRTQKRPVLS
VNG (in isoform PSP57).
/FTId=VSP_003275.
                                                                                                                                                   protein sequencing; Polymorphism; Signal
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Chin J.
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05-JUL-2004 (Rel. 44, Last annotation update)
Beta-microseminoprotein precursor (Prostate secreted seminal plasma protein) (Prostate secretory protein PSP94) (PSP-94).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          secretory protein of 94 amino ac DNA Cell Biol. 16:627-638(1997).
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Papio anubis (Olive baboon).
Eukaryota; Metazoa; Chordata;
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01-NOV-1997 (Rel. 35,
05-JUL-2004 (Rel. 44,
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7; Conserv
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Beta-microseminoprotein.
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Or C-60 with C-70 (By simil
Or C-62 with C-69 (By simil
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  Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H., Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F. Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H., Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C., Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno Okazaki Y., Okido T., Owa C., Salto H., Salto R., Sakai C., Sakai Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki Sogabe Y., Suzuki H., Tagama M., Tagawa A., Takahashi F., Tanaka T Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshiraki Muramatsu M., Hayashizaki Y.,
                                                                                                                                                                                                                                                                                                                                                             MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600; Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashivo H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsuncto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANN-C57BL/6J; TISSUE=Pancreas;
MEDLINE=2049374; PubMed=11042159; DOI=10.1101/gr.145100;
MEDLINE=2049374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
"Normalization and subtraction of cap-trapper-selected cDNAs
prepare full-length cDNA libraries for rapid discovery of new
Genome Res. 10:1617-1630(2000).
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Mus musculus 10 day old male pancreas cDNA, RIKEN full-length enriched
library, clone:1810020E01 product:hypothetical protein, full insert
sequence (RIKEN cDNA 1810020E01).
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The RIKEN Genome Exploration Research Group Pt
The Alysis of the mouse transcriptome based on
60,770 full-length cDNAs.";
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Mammalia; Eutheria; Rodentia;
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Nature 420:563-573(2002).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIKEN FANTOM Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=C57BL/6J; TISSUE=Pancreas;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
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  FROM N.A.
                                          (JUL-2000)
                                                                                                                                                                                                                                                                                                     TISSUE=Pancreas;
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                                          the EMBL/GenBank/DDBJ databases
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Sciurognathi; Muridae;
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on functional annotation of
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; Murinae; Mus
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                                                                                     Yoshino
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RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Haish F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stepleton M., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Robesk S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Hiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
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16-OCT-2001 (Rel. 4
16-OCT-2001 (Rel. 4
25-OCT-2004 (Rel. 4
                                                                                                                                                                                                    SEQUENCE FROM N.A. STRAIN=ATCC 27774;
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    primary
                                                             MEDLINE=20022508;
                                                                                               SEQUENCE
                                                                                                                           Biochem.
                                                                                                                                           nine-heme
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Bacteria, Proteobacteria, Deltaproteobacteria, Desulfovibrionales,
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                   "Nine-haem cytochrome
                                   Carrondo M.A.
                                                                                                                                        "Sequencing the gene encoding Desulfovibrio desulfuricans ATCC nine-heme cytochrome c.";
                                                                                                                                                                                       MEDLINE=99400423;
                                                                                                                                                                                                                                                 NCBI_TaxID=876;
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                                                                                                                                                                                                                                                                                                             Nine-heme cytochrome c precursor (9Hcc)
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EMBL; BC023171; AAR23171.1; -.
EMBL; BC023171; B10020E01Rik.
MGD; MGI:1913521; 1810020E01Rik.
GO; GO:0016021; C:integral to membrane;
InterPro; IPR009801; DUF1370.
InterPro; IPR009801; DUF1370.
IPfam; PF07114; DUF1370; 1.
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MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
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                                                P.M.,
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   sequence determination,
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                                                                             FROM N.A., AND CCC 27774;
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'N; TISSUE=Mammary tumor.
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196 AA; 2
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                                              Saraiva L.M.,
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                                                                                                                                                                                                                                                                                                                           40, Created)
40, Last sequence update)
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                                                                                                                                                                      PubMed=10471375; DOI=10.1006/bbrc.1999.1238;
Posta P.N., LeGall J.;
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                                                                                                                           Commun.
from Desulfovibrio desulfuricans ATCC 27774: ination, crystallographic refinement at 1.8 A
                                                                                          X-RAY CRYSTALLOGRAPHY (1.8
                                          Soares C.M., Coelho A.V., LeGall J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 6; DB 2; ; Pred. No. 11; 0; Mismatches
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PDB; 19HC; X-ray; A/B=31-322.
PDB; 10FW; X-ray; A/B=31-326.
PDB; 10FW; X-ray; A/B=31-326.
InterPro; IPR00345; CytC heme_BS.
InterPro; IPR00345; CytC TII.
InterPro; IPR010312; CytCTII.
InterPro; IPR010313; Multihaem cyt.
Pfam; PF02085; CytCChrom_CIII; 1.
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"The primary and three-dimensional structures of a nine-haem cytochrome c from Desulfovibrio desulfuricans ATCC 27774 reveal a new member of the Hmc family.";

Structure 7:119-130(1999).
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SIMILARITY: Contains 9 cytochrome c domains.
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SUBCHILLIAR LOCATION: Periplasmic.
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  Coelho R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=10368280; DOI=10.1016/S0969-2126(99)80019-7; ho R., Pereira I.A.C., Coelho A.V., Thompson A.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4:478-494(1999)
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RESULT 5
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ID MURD LACPL
AC Q88V80;
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GN Name=murD;
OS Lactobacill:
OX NCBI_TaxID=:
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                       MURD_LACPL STANDARD; PRT; 459 AA. 080×80; 080×80; 29-MAR-2004 (Rel. 43, Created) 29-MAR-2004 (Rel. 43, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) UDP-N-acetylmuramoylalanine--D-glutamate ligase acetylmuramoyl-L-alanyl-D-glutamate synthetase)
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    Bacteria; Firmicutes; Lactobacillales; Lactobacillaceae; Lactobacillus.
            Name=murD; OrderedLocusN
Lactobacillus plantarum.
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HSSP; P14900, 2UAG.
HAMAP; MF_00639; .., 1.
InterPro; IPR004101; Mur_ligase_C.
InterPro; IPR009713; Mur_ligase_N.
InterPro; IPR005762; Mur_D.
Pfam; PF01225; Mur_ligase; 1.
Pfam; PF02875; Mur_ligase_C: 1.
ATP-binding; Cell division; Cell wall; Complete pro
                                                                                                                                                                                                                                            Q9C7H2;
Q9C7H2;
01-JUN-2001
01-JUN-2001
05-JUL-2004
            Lin X., Kaul S., Town C.D., Benito M., Creasy T.H., Haas B.J., Maiti R., Ronning C.M., Koo H., Fujii C.Y., Utterback T.R., Barnstead M.E., Bowman C.L., White O., Nierman W.C., Fraser C.N Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eurosids II; Brassicales; Brassicaceae; Arabidopsis
                                                                                                                                                                                                             Hypothetical
Name=F28P5.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptidoglycan synthesis.
NP_BIND 119 125
SEQUENCE 459 AA; 5013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MRDLINK=24801270; runnen-1777, MRDLINK=24801270; runnen-1777, MRDLINK=24801270; runnen-1777, Molenaar D., Kleerebezem M., Boekhorst J., van Kranenburg R., Molenaar D., Kuipers O.P., Leer R., Tarchini R., Peters S.A., Sandbrink H.M., Kuipers O.P., Leer R., Tarchini R., Peters M.W.E.J., Stiekema W., Klein Lankhorst R.M., Bron P.A., Fiers M.W.E.J., Stiekema W., Klein Lankhorst R.M., Bron P.A., Ursing
                                                                                                                          NCBI_TaxID=3702;
                                                                                                                                                                                           Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Complete genome sequence of Lactobacillus plantarum WCFS1.";
Proc. Natl. Acad. Sci. U.S.A. 100:1990-1995(2003).
-i-FUNCTION: Cell wall formation. Catalyzes the addition of glutamate
to the nucleotide precursor UDP-N-acetylmuramoyl-L-alanine (UMA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [1]
SEQUENCE FROM N.A.
STRAIN=NCIMB 8826 / WCFS1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=22480296;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (By similarity).

CATPLYTIC ACTIVITY: ATP + UDP-N-acetylmuramoyl-L-alanine + Glutamate = ADP + phosphate + UDP-N-acetylmuramoyl-L-alanyl-D-glutamate = PATHWAY: Peptidoglycan biosynthesis.

SUBCELLULAR LOCATION: Cytoplasmic (By similarity).

SIMILARITY: Belongs to the murCDEF family.
                                                                                                                                                                                                                                                                                                                                                                                                403
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                                                                                                                                                                                               thaliana
                                                                                                                                                                                                                            (TrEMBLrel. 17, Creat
(TrEMBLrel. 17, Last
(TrEMBLrel. 27, Last
protein F28P5.4 (Atl
                                                                                                                                                                                                                                                                                                               PRELIMINARY;
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50137
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                                                                                                                                                                                           (Mouse-ear cress).
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                                                                                                                                                                                                                                                                              Created)
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; 083AB3E45C599DC9
                                                                                                                                                                                                                            (At1g72090/F28P5_4).
                                                                                                                                                                                                                                             sequence update) annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOI=10.1073/pnas.0337704100;
Kranenburg R., Molenaar D.,
                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB .
                                                                                                                                                                          Embryophyta; Tracheophyta;
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QSIA76
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RA Cheuk R., Chen H., Kim C.J., Shinn P., Bowser L., Carninci P.,
RA Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B.,
RA Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B.,
RA Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B.,
RA Falm C.J., Quach H.L., Sakurai T., Satou M., Seki M., Onodera C.S.,
RA Tang C.C., Toriumi M., Wong C., Wu H.C., Yamada K., Yu G., Yuan S.,
RA Shinozaki K., Davis R.W., Theologis A., Ecker J.R.,
RA Shinozaki K., Davis R.W., Theologis A., Ecker J.R.,
RA Shinozaki K., Davis R.W., Theologis A., Ecker J.R.,
RA Shinozaki K., Baking J.,
RA Shinozaki K., Saking J.,
RA Shinozaki M., Nazika J.,
Ra Shinozaki M., Na
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Best Local
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Pfam; PF01038; TRAM; 1.
Pfam; PF00319; UPF0004; 1.
Pfam; PF00319; UPF0004; 1.
SMART; SM00729; ELD3; 1.
TIGRFAMS; TIGR01578; MiaB-like-B; 1
TIGRFAMS; TIGR00089; UPF0004; 1.
PROSITE; PS01278; UPF0004; 1.
PROSITE; PS01278; UPF0004; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8IA76;
Q8IA76;
01-MAR-2003
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation updat
Phospholipase c like protein 1, isoform b.
Name=pll-1; ORFNames=K10F12.3;
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Bowser L., Carninci P., Chung M.K., Goldsmith A.D., Hayashizaki Y.,
Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B.,
Lee J.M., Lin J., Liu S.X., Miranda M., Narusaka M., Nguyen M.,
Palm C.J., Pham P.K., Quach H.L., Sakano H., Sakurai T., Satou M.,
Seki M., Southwick A., Toriumi M., Yamada K., Yu G., Shinozaki K.,
Davis R.W., Theologis A., Ecker J.R.;
Submitted (MAR-2001) to the EMBL/GenBank/DDR.7 Astronomy.
                                               SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                               WormBase Consortium;
"Genome sequence of the nematode C.
"nestigating biology. The C. elegar
Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                      STRAIN=Bristol N2;
MEDLINE=99069613; 1
                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical protein SEQUENCE 601 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rhabditidae; Peloderinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Caenorhabditis elegans.
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                                                                                                                                                                                                                                                                                          PubMed=9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nematoda; Chromadorea; rinae; Caenorhabditis.
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                                                                                                                                                                                elegans
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                                                                                                                                                                     elegans: a platform
ns Sequencing Consort
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                                                                                                                                                                                Consortium.";
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GO; GO:0007242; P:1---
GO; GO:0007242; P:1---
                                                                                                                                                                                                 Query Match
Best Local :
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                                                                                                                                                                                                                                                                           PRINTS; PRO0360; C2DOMAÎN.
PRINTS; PRO0390; PHPHLIPASEC.
PRODOM; PD001202; PI PLC_Y; 1.
SMART; SM00239; C2; 1.
SMART; SM00233; PH; 1.
SMART; SM00148; PLCXC; 1.
SMART; SM00149; PLCYC; 1.
                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000008; C2.
InterPro; IPR008973; C2_Calb.
InterPro; IPR001849; pH.
InterPro; IPR011036; pH_related.
InterPro; IPR011192; pI_PLC_X.
InterPro; IPR001191; pI_PLC_X.
InterPro; IPR001711; pI_PLC_Y.
        Q8IA75, PRELIMINARY; PRT; 1075 AA.
Q8IA75,
01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Phospholipase c like protein 1, isoform a.
Name=pll-1; ORFNames=Kl0F12.3;
Caenorhabditis elegans.
                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00168; C2; 1.
Pfam; PF00388; PI-PLC-X; 1.
Pfam; PF00387; PI-PLC-Y; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WormBase Consortium;
Submitted (SEP-2004) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wohldmann P., Beck C.;
"The sequence of C. elegans
Submitted (SEP-1997) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-Bristol
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STRAIN=Bristol N2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GO:0004435; F:phosphoinositide phospholipase C activity; IEA. GO:0007242; P:intracellular signaling cascade; IEA. GO:0006629; P:lipid metabolism; IEA.
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                                                                                                                                             310
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                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                            PS50004; C2_DOMAIN_2; 1.
PS50007; PIPLC_X_DOMAIN; 1.
PS50008; PIPLC_Y_DOMAIN; 1.
                                                                                                                                            TONCET 315
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (DEC-2003)
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Nematoda; Chromadorea; Rhabditida;
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EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              domain
                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                  9BF7CFCFFD7EC221 CRC64;
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Rhabditoidea;
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Rhabditidae;

Peloderinae; Caenorhabditis.

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                                                                                           Query Match
Best Local S
Matches 6
                                                                                                                                                                              Pfam; PF00387; PI-PLC-Y; 1.

PRINTS; PR00360; CZDOWAIN.

PRINTS; PR00360; EXPDHLIPASEC.

PRODOm; PR003090; PHPHLIPASEC.

PRODOm; PD001202; PI PLC Y; 1.

SMART; SM00239; CZ; I

SMART; SM00233; PH; 1.

SMART; SM00149; PLCXC; 1.

SMART; SM00149; PLCYC; 1.

PROSITE; PS50004; CZ DOWAIN 2; 1.

PROSITE; PS50007; PIPLC X DOWAIN; 1.

PROSITE; PS50008; PIPLC Y DOWAIN; 1.

SEQUENCE 1075 AA; 121111 MW; 61021
                                                                                                                                                                                                                                                                                                                                                                                                                                         GO; GO:0006629; P:lipid metabolism; IEA.

InterPro; IPR000008; C2.

InterPro; IPR00008973; C2 Calb.

InterPro; IPR001849; PH.

InterPro; IPR011036; PH related.

InterPro; IPR011036; PI PLC X.

InterPro; IPR001192; PI PLC X.

InterPro; IPR001711; PI PLC Y.

Pfam; PP00168; C2; 1.

Pfam; PP00387; PI-PLC-X; 1.

Pfam; PP00387; PI-PLC-X; 1.
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STRAIN-Bristol N2;
Wohldmann P., Beck C.;
"The sequence of C. elegans
Submitted (SEP-1997) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 မ မ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WormBase Consortium;
Submitted (SEP-2004) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WormBase Consortium, "Genome sequence of the nematode C. elegans: a platform for "Genome sequencing bloopy. The C. elegans Sequencing Consortium."; Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WormBase; WBGene00004045; pll-1. WormPep; Kl0F12.3a; CE31036.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SIMILARITY: Contains 1 (EMBL; AF025462; AAN72422.1; HSSP; P10688; IDJH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. STRAIN=Bristol N2;
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STRAIN-Bristol N2;
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MEDLINE=99069613; PubMed=9851916;
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[1]
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  317
                                            ທ
                                                                                           Similarity 6; Conserv
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TONCET 322
                                            TDNCET 10
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                                                                                           Conservative
                                                                                      37.5%; Score 6; I
100.0%; Pred. No.
cive 0; Mismatch
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EMBL/GenBank/DDBJ databases
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red. No. 49;
Mismatches
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RESULT OF CONTROL OF C
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05-UUL-2004 (TrEMBLrel. 2:
05-UUL-2004 (TrEMBLrel. 2:
05-UUL-2004 (TrEMBLrel. 2:
VARV Bangladesh B22R orth
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InterPro; IPR000742; EGF_1:
InterPro; IPR006209; EGF_like.
InterPro; IPR005127; Giardia_V:
InterPro; IPR009300; Grow fac:
InterPro; IPR002049; Laminin_EC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q7QZU9;
Q7QZU9;
01-MAR-2004
Skinner M.A., Laidlaw S.M.;

"Comparison of the genome sequence of FP9, an attenuated, tissue culture-adapted European fowlpox virus, with those of virulent American and European viruses.";

J. Gen. Virol. 85:305-322(2004).

EMBL; AJ581527; CAB52663.1; -.

InterPro; ITR007490; Poxvirus_B22R.

Pfam; PF04395; Poxvirus_B22R; 1.

SEQUENCE 1870 AA; 211756 MW; 2423D319743D3F2F CRC64;
                                                                                                                                                                                                                                                                                                             Name=fp9.122;
Fowlpox virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00022; EGF_1; 4.

PROSITE; PS01186; EGF_2; 12.

PROSITE; PS50026; EGF_3; 2.

PROSITE; PS01248; LAMININ TYPE EGF; 4.

SEQUENCE 1615 AA; 169595 MW; B88E3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                    Fowlpox virus (isolate HP-438[Munich]) Viruses; dsDNA viruses, no RNA stage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q70H34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Olsen G.J., Sogin M.L.;
"Draft sequence of the Giardia lamblia Submitted (MAR-2003) to the EMBL/GenBar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLP_609_15416_20263.
Giardia lamblia ATCC 50803.
                                                                                                                                                                                                                                           NCBI_TaxID=10263;
                                                                                                                                                                                                                                                                      Avipoxvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00008; EGF; 2.
Pfam; PF00053; Laminin_EGF; 1.
Pfam; PF03302; VSP; 1.
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01-MAR-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                preliminary data.
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; EGF 1ike.
; Giardia VSP.
; Grow fac recept.
); Laminin EGF.
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Pred. No.
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70;
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RESULT 12
LMA2_HUMA1
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Q9J5A0;
01-OCT-2000
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P24043; Q14736; Q33022;
Q14736; Q32022;
Q1-MAR-1992 (Rel. 21, Created)
Q1-NOV-1997 (Rel. 35, Last sequence update)
25-JAN-2005 (Rel. 46, Last annotation update)
Laminin alpha-2 chain precursor (Laminin M chain) (Merosin heavy
       MEDLINE=97066955; PubMed=8910357; DOI=10.1074/jbc.271.44.27664; Zhang X., Vuolteenaho R., Tryggvason K.; "Structure of the human laminin alpha2-chain gene (LAMA2), whic
                                                                                      Vuolteenaho R., Nissinen M., Sainio K., Byers M., Eddy R., Hirvonen H., Shows T.B., Sariola H., Engvall E., Tryggvason K., "Human laminin M chain (merosin): complete primary structure, chromosomal assignment, and expression of the M and A chain in )
                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                  TISSUE=Placenta;
                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                                                          chain)
                                                                                                                                                                                                                                                                                                                       HUMAN
                                            SEQUENCE FROM N.A.
                                                                               fetal tissues."
                                                                                                                                    MEDLINE=94124633; PubMed=8294519;
                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                             Name=LAMA2; Synonyms=LAMM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOI=10.1128/JVI.74.8.3815-3831.2000;
Afonso C.L., Tulman E.R., Lu Z., Zsak L.,
"The genome of fowlpox virus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-OCT-2000 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
ORF FPV122 variola B22R
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=FPV122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=20193820; PubMed=10729156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10261;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Viruses; dsDNA viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fowlpox virus (FPV).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Virol. 74:3815-302-1.

IBL; AF198100; AAF44466.1; -.

ILCEPTO; IPR007490; POXVITUS_B22R.

ICEM; PF04395; POXVITUS_B22R; 1.

FORTENICE 1870 AA; 211756 MW; 24
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                                                                    Biol.
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100.0%; Pr
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Catarrhini; Hominidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       2423D319743D3F2F CRC64;
                                                                                                                        DOI=10.1083/jcb.124.3.381; io K., Byers M., Eddy R.,
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                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2;
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This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and
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[3]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=21476011; PubMed=11591858; He Y., Jones K.J., Vignier N., Mor Estournet-Mathiaud B., Hori H., Mi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chain deficiency: molecular s
Neurology 57:1319-1322(2001).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Guicheney
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=22439669; PubMed=12552556; DOI=10.1002/humu.10157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Novel single base polymorphisms and rare laminin 2-chain coding region detected by Hum. Mutat. 13:174-174(1999).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Placenta;
MEDLINE=90238994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /ARIANTS GLN-545;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Merosin, a tissue-specific basement
                                                                                                                                                                                                                                                                                                       is thought to mediate the attachment, migration and organization of cells into tissues during embryonic development by interacting with other extracellular matrix components.

SUBUNIT: Laminin is a complex glycoprotein, consisting of three different polypeptide chains (alpha, beta, gamma), which are bound to each other by disulfide bonds into a cross-shaped molecule comprising one long and three short arms with globules at each end. The alpha-2 chain is a subunit of laminin-2 (merosin) and SUBCELLULAR LOCATION: Extracellular; found in the basement
                                                                                                                                                                                                                                                                                 membranes (major component).
TISSUE SPECIFICITY: Placenta, striated
                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: Binding to cells via a high affinity receptor, laminin is thought to mediate the attachment, migration and organization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mutat. 13:340-340(1999)
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G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                545; HIS-619; LEU-919; HIS-2586, Mendell J.T., Chen L., Feng B. Amato A.A., Mendell J.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , Mendell J.T., Chen Amato A.A., Mendell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Argraves W.S.,
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n, kidney,
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MIM; 156225;
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GO; GO:000560
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DEF4_ANDAU STANDARD; PR

DEF4_ANDAU STANDARD; PR

AC P56686; P81618;
DT 15-JUL-1999 (Rel. 38, Created)
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Best Local
               PROSITE; PS00425; ARTHROPOD D
Antibiotic; Defensin; Direct
DISULFID 4 25
DISULFID 11 33
DISULFID 15 35
SEQUENCE 37 AA; 4212 MW;
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PRODOM; PD003031; Laminin B; 2.

PROSITE; PS00022; EGF 1; 11.

PROSITE; PS01186; EGF 2; 3.

PROSITE; PS01248; LAMININ TYPE EGF; 14.

Basement membrane; Cell adhesion; Coiled coil;
Congenital muscular dystrophy; Direct protein
                                                                                                                                Pfam;
                                                                                                                                                                                                                                                                                                                                    SEQUENCE, CHARACTERIZATION, AND MASS SPECTROMETRY.
STRAIN=Hector; TISSUE-Hemolymph;
MEDLINE=97094646; PubMed=8939880; DOI=10.1074/jbc.271.47.29537;
Ehret-Sabatier L., Loew D., Goyffon M., Fehlbaum P., Hoffmann J
van Dorsselaer A., Bulet P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam;
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Pfam;
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                                                                                                                                                                                                                       Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida;
Buthida; Buthoidea; Buthidae; Androctonus.
                                                                                                                              InterPro; IPR001542; Defensin_anpod. Pfam; PF01097; Defensin_2; 1
                                                                                                                                                                     HSSP; P80571;
                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=6858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Androctonus australis (Sahara scorpion).
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InterPro; IPR008211;
InterPro; IPR003129;
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m; pP00052; Laminin EGF; 14.
m; pP00053; Laminin G; 5.
am; pP00008; Laminin I; 1.
am; pP06008; Laminin II; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GO:0005198;
GO:0007517;
                                                                                                                                                                                                            NOTE=Ref.1.
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IPR001791;
IPR009254;
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Gal_bind_like.
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AB1363ECE3FB84C1 CRC64;
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                                                                                                                DEFENSINS; 1.
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o. 1.3e+02;
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sequencing; Length 3110 Indels

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defensin family. Subfamily

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RESULT 15
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01-DEC-1992 (Rel. 2
01-DEC-1992 (Rel. 2
05-JUL-2004 (Rel. 4
SEQUENCE.
TISSUE=Hemolymph;
MEDLINE=93049356; PubMed=1425705;
MEDLINE=91049356; PubMed=1425705;
Bulet P., Cociancich S., Reuland M., Sauber
Bulet P., Tociancich S., Hetru C., Hoffmann J.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
DISULFID
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DEF4 1
                                                                                                                                                                   Aeschna cyanea (Dragonfly) (Blue darner).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Palaeoptera; Odonata; Anisoptera; Aeshnidae; Aeshna.
NCBI_TaxID=12921;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P41965;

01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
4 kDa defensin (Antibacterial 4 kDa peptide)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leiurus quinquestriatus hebraeus (Yellow scorpion).
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Butholdea; Buthidae; Leiurus.
                                                                                                                                                                                                                                                                     Defensin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Purification and characterization of a scorpion defensin, a 4kDa antibacterial peptide presenting structural similarities with insect defensins and scorpion toxins.";
                                                                                                                                                                                                                                                                                                                                                                                   DEFI_AESCY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF01097; Defensin 2; 1.
PROSITE; PS00425; ARTHROPOD_DEFENSINS; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; P80571; 1FJN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cociancich S., Goyffon M., Bontems F., Bulet P., Hoffmann J.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=93326112; PubMed=8333834;
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DF35FB21ECE3FB84 CRC64;
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Pred. No. 42;
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                                                       Bischoff R.,
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                                                                                                                                               Interpro; IPR001542; Defensin anpod.

Pfam; PF01097; Defensin 2; 1.

PROSITE; PS00425; ARTHRÖPOD DEFENSINS; 1.

Antibiotic; Defensin; Direct protein sequencing; Insect immunity.
                                                                                                  SEQUENCE
                                                                                                                                                                                                     PIR; S27242; S27242.
HSSP; P80571; 1FJN.
                                                                                                                                                                                                                                                                               "A novel insect defensin mediates the inducible antibacterial activity in larvae of the dragonfly Aeschna cyanea (Paleoptera, Odonata)."; Eur. J. Blochem. 209:977-984(1992).
                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                     -!- FUNCTION: Mediates the inducible antibacterial activity in larvae
                                                                                                                                                                                                                             SUBCELLULAR LOCATION: Secreted. SIMILARITY: Belongs to the arthropod defensin family. Subfamily
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                                               Similarity 5; Conserv
TCTCY 37
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                                                Conservative
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                                                                                                  4180 MW;
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7C884A8FDF54A46A CRC64;
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Result
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- 2005 Compugen Ltd
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| 45         | 44         | 43         | 42         | 41.        | 40         | 9          | 38         | 37         | 36         | 35         | 34         | <b>3</b> 3 | 32         | 31         | 30         | 29         | 28         | 27         | 26         |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 18         | 19         | 20         | 21         | 22         | 23         | 24         | 25         | 26         | 27         | 28         | 29         | 29         | 30         | 31         | 32         | ω<br>O     | 34         | 35         | 36         |
| 40.0       | 42.2       | 44.4       | 46.7       | 48.9       | 51.1       | 53.3       | 55.6       | 57.8       | 60.0       | 62.2       | 64.4       | 64.4       | 66.7       | 68.9       | 71.1       | 73.3       | 75.6       | 77.8       | 80.0       |
| 18         | 19         | 20         | 21         | 22         | 23         | 24         | 25         | 26         | 27         | 28         | 119        | 29         | 30         | 31         | 32         | 33         | 34         | 35         | 36         |
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| AA017968   | AA017969   | AA017970   | AA017971   | AA017972   | AA017973   | AA017974   | AA017975   | AA017976   | AA017977   | AA017978   | AAU28255   | AA017979   | AA017980   | AA017981   | AA017982   | AA017983   | AAO17984   | AAO17985   | AAO17986   |
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ALIGNMENTS

AA017995 standard; protein;

<u>4</u>5 æ

Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; Human prostate secretory protein of 94 amino acids PSP94 analogue #84 Homo sapiens. 30-AUG-2002 (first entry) AAO17995; benign 25-APR-2002. WO200233090-A2 prostate hyperplasia; cytostatic

15-OCT-2001; 2001WO-CA001463.

16-OCT-2000; 2000CA-02321256. 20-AUG-2001; 2001CA-02355334.

(PROC-) PROCYON BIOPHARMA INC.

Garde s Panchal CJ, Baijal-Gupta M, Fraser Ç Kadhim

S

WPI; 2002-471401/50.

New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.

Claim 2; Page 104; 185pp; English.

The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The sequence analogue of the invention

AA017992 AA017991

Aao17992 Aao17991

AAO17990 A017989

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RESULT 2
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                                                                                                                                                                                                                                                                                                                                                            pharmaceutical preparation for treating patients with benign prostatic hyperplasia or adenocarcinoma, particularly adenocarcinoma of the prostate or gastrointestinal tract or breast cancer. The preparation can also be used to treat patients with diseases characterised by elevated levels of follicle stimulating hormone (FSH). The PIP and its analogues inhibit tumour growth and desrease FSH levels without adversely affecting testosterone levels. (Updated on 25-MAR-2003 to correct PN field.)
     AAO17911 standard;
                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 1; 48pp; English.
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benign prostatio
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JUN-1992;
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30-JUN-1994
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ilarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           prostatic inhibin peptide or analogues - used for treating tic hyperplasia, adenocarcinoma or diseases with high FSH
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protein;
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RESULT 4
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                                                        Human; cytostatic; prostate secretory protein-94; PSP-94; hypercalcaemia of malignancy; carcinoma; prostate cancer; breast parathyroid hormone related peptide; PTHrP; skeletal metastasis.
                                                                                                                    Native Human prostate secretory protein-94 (PSP-94).
                                                                                                                                                                                                              ABR56227 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach, gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                     20-NOV-2003
                                                                                                                                                                                  ABR56227;
                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 94 AA;
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20-AUG-2001; 2001CA-02355334.
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RESULT 5
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Matches 45
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                                                                                                      16-OCT-2000;
20-AUG-2001;
                                                                                                                                                                                                                                                                                                Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Use of prostate secretory protein-94 for treating hypercalcemia of malignancy and reducing skeletal metastasis arising from carcinomas, prostate and breast cancers.
                                             Garde S,
                                                                                                                                                                                                                                                                                                                                                                  Human
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                                                                           PROCYON BIOPHARMA INC
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                                             Panchal CJ,
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2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                 secretory protein of 94 amino acids PSP94 analogue
                                                                                                                                                                                                                                                                        hyperplasia; cytostatic
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                                            Baijal-Gupta M,
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Pred. No. 6.2e-39;
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RESULT 6
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ABRSGLT ABR
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Best Local
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                                                                                                                                                                                                                                                                                                                                                               Use of prostate secretory protein-94 for treating hypercalcemia malignancy and reducing skeletal metastasis arising from carcino prostate and breast cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human prostate secretory protein of 94 amino acids, inhibiting growth of e.g. tumor, prostatic adenocarcinor gastrointestinal, breast, endometrial, and ovarian cance
                                                                                                                                                                                                                                                                                                             Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-NOV-2001; 2001CA-02361736.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Recombinate prostate secretory protein-94 (PSP-94).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-NOV-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypercalcaemia of malignancy; carcinoma;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 53
                                                                                                                                                                                                                                                                                                          Page 35-36; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hormone related peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ma; prostate cancer; breast
PTHrP; skeletal metastasis.
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The present invention relates to the use of prostate secretory protein-94 (PSP-94; the present sequence) for treating a patient suffering from hypercalcaemia of malignancy. PSP-94 is useful for treating a patient suffering from hypercalcaemia of malignancy axising from carcinomas, prostate and breast cancer. The PSP-94 is also useful for reducing parathyroid hormone related peptide (PTHrP) levels in a patient in need and reducing the development of skeletal metastasis. The PSP-94 is also used for the manufacture of a pharmaceutical composition for the treatment of hypercalcaemia of malignancy and/or skeletal metastasis

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                                                                                                                                     The present sequence is a polypeptide encoded by one of a large number of 5' ESTs derived from mRNAs encoding secreted proteins. The 5' ESTs were prepared from total human RNAs or polyA+ RNAs derived from 30 different tissues. EST sequences usually correspond mainly to the 3' untranslated region (UTR) of the mRNA because they are often obtained from oligo-dT primed cDNA libraries. Such ESTs are not well suited for isolating cDNA sequences derived from the 5' ends of mRNAs and even in those cases where longer cDNA sequences have been obtained, the full 5' UTR is rarely included. 5' ESTs are derived from mRNAs with intact 5' ends and can therefore be used to obtain full length cDNAs and genomic DNAs. 5' ESTs are also used in diagnostic, forensic, gene therapy and chromosome mapping procedures. They are used to obtain upstream regulatory sequences and to design expression and secretion vectors
                                                                                                                                                                                                                                                                                                                                                                   New nucleic acid that is a 5' expressed sequence tag (5' EST) for obtaining cDNAs and genomic DNAs that correspond to 5'ESTs and for diagnostic, forensic, gene therapy and chromosome mapping procedures
                                                                                                               Sequence, 114 AA,
                                                                                                                                                                                                                                                                                                                                           Claim 13; SEQ ID NO 7807; 71pp + Sequence Listing; English.
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45; Conserv
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                SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45
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                                                      100.0%; ilarity 100.0%; Conservative
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RESULT 8

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CC ischaemia-reperfusion injury, shock, sepsis, immune responses, and is convolved in increasing haematopolesis, stem cell survival, bone growth CC and remodeling. (I), (II) and modulators of (II) are useful for CC prophylaxis or treatment of one or more cancers. (II) is also useful for CC creating transgenic animals useful for studying the in vivo activities of the polypeptide as well as for studying modulators of the polypeptides. (CC (I) induces the proliferation of neural cells and regeneration of nerve cancers and regeneration of nerve can brain tissue and is useful for the treatment of central and complete control of the polypeptides. (I) induces the proliferation of neural cells and regeneration of nerve can brain tissue and is useful for the treatment of central and complete control of the polypeptides. (I) is involved in chemotactic or chemokinetic cativity, regulation of haematopolesis and is useful for treating myeloid cor lymphoid cell disorders, platelet disorders such as thrombocytopenia catissue growth, and in tissue repair, healing of burns, incisions, ulcers, cor periodontal disease. Furthermore, (I) is also useful for gut protection or regeneration and treatment of lung or liver fibrosis.
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14-JUL-2000;
19-SEP-2000;
fungal infections, authoritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel polypeptides and nucleic acids obtained from cDNA libraries prepared from various human tissues, for diagnosis and treatment cancer, neurological, inflammatory, and autoimmune disorders.
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Zhao
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19-MAY-2000;
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                 disorders including severe combined immunodeficiency (SCID), bacterial fungal infections, autoimmune disorders e.g. multiple sclerosis,
                                                      reperfusion injury in various tissues, various immune deficiencies and
                                                                                                                                                                                                                                                                                                                                                                                                           and polynucleotides (II). (I) and (II) are useful for treating inflammatory conditions such as arthritis, nephritis, Crohn's disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-MAR-2001; 2001WO-US004942.
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ARESULT 9
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kalos MD, Fano
Carter D, Li S
Mcneill PD, Ho
                                                                                                                                                                   useful for stimulating an immune response in a patient, or for treating prostate cancer in a patient and for determining, detecting or diagnosing the presence of a cancer in a patient. The present sequence was used to
                                                                                                                                                                                                                                                                                                                                                                                                                                       New prostate-specific proteins and genes, useful in gene therapy, particularly for stimulating an immune response in a patient, or treating prostate cancer in a patient, as well as for diagnosing prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-MAY-2001; 2001US-00852911.
29-JUN-2001; 2001US-00895814.
10-DEC-2001; 2001US-00012896.
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                                                                                                                                                                                                                                                             The present invention relates to novel prostate-specific proteins and their coding sequences are
                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Χu J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-MAY-2002; 2002WO-US014753.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-NOV-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytostatic; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-AUG-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-167130/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200289747-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABR54574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABR54574 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     reactions and conditions,
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                                                                                                                                                                                                                                                                                                                                                       2; Page 666; 691pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         acid sequences of the invention
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                                                                                                                                                 the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    on DC, Mitcham JL, Harlocker SL, Jiang Y, Hend
Fanger GR, Retter MW, Stolk JA, Day CH, Vedvic
Li SX, Wang A, Skeiky YAW, Hepler WT, Hural J;
Houghton RL, Vinals Y De BassolsC, Foy TM, Wa
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   0.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            prostate-specific protein; PSP; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     such as asthma or other respiratory problems.
                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        114
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Pred. No. 7.2e-39;
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No.
   DB 6;
7.2e-39;
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                           Length 114;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Henderson RA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Watanabe
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RESULT 10
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                                                                                                                                                              Query Match
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                                                                                                                                                                                                                                                     prostate cancer by comparing the level of expression of a marker in a patient sample and the normal level of expression of the marker in a control non-prostate cancer sample, where a significant increase in the level of expression of the marker in the patient sample and the normal level indicates that the patient is afflicted with prostate cancer. Nucleic acids of the invention are useful for diagnosing or treating prostate cancer, and may be useful in gene therapy. Sequences given in ADB75177-ADB75631 represent marker cDNA and proteins. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schlegel
Hoersh S,
                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of the invention involves assessing whether a patient is afflicted with prostate cancer by comparing the level of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the cancerous state of prostate cells. Also disclosed is a method assessing whether a patient is afflicted with prostate cancer. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUL-2001; 2001US-0307982P
22-AUG-2001; 2001US-0314356P
25-SEP-2001; 2001US-0325020P
15-DEC-2001; 2001US-0341746P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Prostate cancer marker protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-MAR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JUL-2002; 2002WO-US023913
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                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        invention relates to newly discovered cancer markers associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
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                                                                                                  h 100.0%;
Similarity 100.0%;
45; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽,
                                             SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET
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                                                                                                                                                                                                              114 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kamatkar S, Wonsey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 271;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acid molecule, useful for diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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onsey AM, Glatt K, Zhao X,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99pp; English.
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                                                                                                Score 45; DB
Pred. No. 7.2
0; Mismatches
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thes 0;
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                                                                                                                                                        Length 114;
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Anderson D;
  65
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ADB14453
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06-SEP-2000;
02-OCT-2000;
10-OCT-2000;
19-NOV-2000;
12-JAN-2001;
09-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-NOV-1999;
14-JAN-2000;
27-MAR-2000;
09-MAY-2000;
12-MAY-2000;
13-JUN-2000;
27-JUN-2000;
09-AUG-2000;
                         The invention relates to an isolated polypeptide comprising no more than 11-542 amino acids of ADB13563 comprising a sequence ADB14487. The peptides comprise a fragment ADB13563 is a sequence ADB144B7. The relationship of the contain naturally processed T-cell epitopes for 3 class I major histocompatibility complex (MHC) alleles. ADB13563 is a polypeptide encoded by a human prostate specific cDNA, one of 648 disclosed as new Also included are nucleic acids encoding the proteins and peptides, expression vectors, a host cell transformed with the vector, an isolated antibody (or antiqual peptides) and the proteins and peptides expression vectors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-FEB-1998;
14-JUL-1998;
23-SEP-1998;
15-JAN-1999;
09-APR-1999;
                                                                                                                                                                                                                                                                                  Xu J,
                                                                                                                                                               Example 34; Page; 101pp; English.
                                                                                                                                                                                                          New isolated response, or
                      tragment)
                                                                                                                                                                                                                                                                                                                                                                                      09-MAY-2001;
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12-NOV-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-OCT-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tumour; antigen
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                                                                                                                                                                                                                                                      2003-756193/71.
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2000US-00483672

2000US-00536857

2000US-00568100

2000US-00568100

2000US-005970737

2000US-00695783

2000US-00657279

2000US-00651236

2000US-00657279

2000US-00651236

2000US-00657279

2000US-00651236

2000US-0068516

2000US-0078966

2000US-0078966

2000US-0078966

2000US-00012896

2001US-00012896

2001US-00012896

2001US-00012896

2001US-00012896
                                                                                                                                                                                                      polypeptide for use in a vaccine for stimulating an infor treating or diagnosis cancer, preferably prostate
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99US-00288946
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97US-00904804
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or.

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RESULT 12
ADG26976
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the presence of a cancer in a patient (comprising contacting a patient C sample with a binding agent that binds to the peptides or a polypeptide cappearing as ADB1355B, detecting the amount of polypeptide that binds to the gent and comparing the amount of polypeptide that binds to the agent and comparing the amount of polypeptide to a predetermined cut-comprising that peptides or proteins, stimulating or expanding T cells specific for a tumour protein comprising contacting T cells with the comparising administering a composition comprising with the peptides or the isolated T cell population, treating prostate cancer in a cancer in a patient and treating prostate cancer in a patient comprising determining the presence of a cancer in a patient and treating prostate cancer in a patient comprising includating cluster of differentiation (CD4+) and/or CD8+ T cells isolated (the peptides so that the T cells proliferate, and administering the presence of cancer in a patient the patient. The peptides (or an oligonucleotide that hybridises to nucleic acid encoding them), is used to detect the presence of cancer in a patient. The peptides, nucleic acid, are used to consider a patient and patient of the nucleic acid, are used to consider a patient of the peptides, nucleic acid, are used to presenting cells are used to stimulate an immune response or treat consideration, but was obtained in electronic format directly from USPTO at sequence data for this pateent did not form part of the printed consideration, but was obtained in electronic format directly from USPTO at sequence in a sequence.html?DocID=20030185830.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
23-CBP-1998;
15-JAN-1999;
09-APR-1999;
13-JUL-1999;
12-NOV-1999;
18-NOV-1999;
18-NOV-1999;
14-JAN-2000;
27-MAR-2000;
12-MAY-2000;
                                                                                                                                                                                         25-FEB-1997;
01-AUG-1997;
09-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                         25-FEB-1998;
14-JUL-1998;
                                                                                                                                                                                                                                                        09-MAY-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                  Human prostate-specific polypeptide #243.
                                                                                                                                                                                                                                                                                          21-AUG-2003
                                                                                                                                                                                                                                                                                                                        US2003157089-A1
                                                                                                                                                                                                                                                                                                                                                                                       Human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADG26976;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADG26976 standard; protein; 114 AA
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                                                                                                                                                                                                                                                                                                                                                      sapiens
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                                                                                                                                                                                                                                                                                                                                                                                  prostate-specific polypeptide; prostate cancer; cytostatic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET
98US-00159812

99US-00232149

99US-00288946

99US-00352616

99US-00439313

99US-0043672

2000US-0043672

2000US-0056810

2000US-0056810

2000US-00570737
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA,
                                                                                                                                                                                                                                                        2002US-00144678
                                                                                                                                                         97US-00904804.
98US-00020956.
98US-00030607.
98US-00115453.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 45; DB
Pred. No. 7.2
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
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.2e-39;
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RESULT 13
ADJ68726
ID ADJ68
XX ADJ68
XX
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Best Local (
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Kalos MD, Fanger GR,
Kalos MD, Li SX, Wang
Carter D, Li SX, Wang
Mcneill PD, Houghton F
Meagher MJ, Deng T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-JUN-2000;
27-JUN-2000;
09-AUG-2000;
29-AUG-2000;
06-SEP-2000;
02-OCT-2000;
02-OCT-2000;
09-NOV-2000;
09-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to human prostate-specific polypeptides and the polymucleotides encoding them. The invention also relates to an isolated antibody or its antigen-binding fragment that specifically binds a polypeptide of the invention, a method of detecting cancer in a parient comprising contacting a biological sample of the patient with an agent that binds a prostate-specific polypeptide and comparing the amount of bound polypeptide compared to a predetermined cut-off value and a fusion protein comprising a prostate-specific polypeptide. The sequences of the invention are used to diagnose and treat cancer, barticularly prostate cancer. This sequence represents a human prostate-specific polypeptide of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format
                                              Huntington's disease; osteoarthritis;
Leber's hereditary optic neuropathy; LHON;
mitochondrial encephalopathy lactic acidosis and stroke; MELAS;
myoclonic epilepsy ragged red fibre syndrome; MERRF; cancer;
neuroprotective; nootropic; antidiabetic; anticonvulsant; antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New polynucleotides encoding prostate specific a human prostate tumor cDNA library are useful cancer particularly prostate cancer.
                                                                                                                                                                                            mitochondrial; human;
                                                                                                                                                                                                                                           Human heat mitochondrial protein as a therapeutic target SeqID532
                                                                                                                                                                                                                                                                                                                                                                                                                   ADJ68726
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29-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 2; SEQ ID NO 1003; 99pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-777973/73.
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                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET
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2000US-00709729.
2001US-00759143.
2001US-00780669.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA;
                       ophthalmological;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-00012896.
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2001US-00895814.
                                                                                                                                                                                                                                                                                                     (first
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GR, Retter MW, Stolk JA, Day CH, Vedvick TS;
Wang A, Skeiky YAW, Hepler WT, Hural J;
ton RL, Vinals Y De BassolsC, Foy TM, Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                   protein; 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                    screening assay; diabetes mellitus, osteoarthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 45; DB 7;
Pred. No. 7.2e-39;
                          cytostatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polypeptides isolated to diagnose and treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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RESULT 14
ADK70534
ID ADK70
XX ADK70
XX ADK70
XX D6-MA
XX Cytos
XX Cytos
XX Cytos
XX Cytos
XX Chron
XX Chron
XX Homo
XX Homo
XX MO200
XX MO200
XX MO201
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CC for therapeutic intervention in treating a disease associated with CC altered mitochondrial function. Specifically, it refers to a method for CC identifying proteins of the human heart mitochondrial proteome that are CC present invention describes a method for identifying such proteins that CC can be used in the treatment of various diseases associated with altered CC mitochondrial function including diabetes mellitus, Huntington's disease, CC osteoarthritis, Leber's hereditary optic neuropathy (LHON), mitochondrial CC encephalopathy lactic acidosis and stroke (MELAS), myoclonic epilepsy CC cangostions have neuroprotective, noutropic, antidiabetic, antiarthritic, osteopathic, ophthalmological and CC cytostatic activities. This polypeptide sequence is a human heart CC mitochondrial protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                            cytostatic; respiratory; antiasthmatic; gene therapy; differential gene expression; respiratory disorder; l chronic obstructive pulmonary disease; emphysema; ast
                                                                                                                                                                                                                                                                         Respiratory
                                                                                                                                                                                                                                                                                                                            06-MAY-2004
                                                       WO2003101283-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                ADK70534 standard; protein; 114 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Identifying a mitochondrial target for drug screening assays and for treating diseases associated with altered mitochondrial function, comprises detecting a modified polypeptide in a sample and correlating the state of the sample and correlating the sample and cor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-APR-2002; 2002US-0372843P
17-JUN-2002; 2002US-0389987P
20-SEP-2002; 2002US-0412418P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This invention relates to novel mitochondrial targets that can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-845369/78
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-APR-2003; 2003WO-US010870
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           114 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fahy ED,
                                                                                                                                                                                                                                                                         disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ID NO 532;
                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                      differentially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhang
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 45;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gibson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; DB 7; 1
; 7.2e-39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Taylor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WS,
                                                                                                                                                                                           lung cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65
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11-DEC-2003

04-JUN-2002; 2002US-0386005P.

02-JUN-2003;

2003WO-US017409

healthy subject

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RESULT 15
ADJ75600
ID ADJ75600
ID ADJ755
XX AC ADJ75
XC ADJ75
XX 20-MA
EX Explain
EX Exp
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Best Local S
Matches 45
Testing for bronchial asthma or chronic obstructive pulmonary disease by comparing the expression level of a marker gene in a biological sample from a subject with the expression level of the gene in a sample from a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bronchial asthma; chronic obstructive pulmonary disease; respiratory epithelial cell; interleukin-13; respiratory; antiasthmatic; gene therapy; marker.
                                                                                                                                  WPI; 2004-193155/19.
                                                                                                                                                                                          Ohtani N,
                                                                                                                                                                                                                                                                                                             06-AUG-2002; 2002JP-00229312.
20-MAR-2003; 2003JP-00077212.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EP1394274-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to cDNA sequences that are differentially expressed in respiratory disorders or their complements or encoded proteins. The cDNAs and proteins are useful for diagnosing, treating or monitoring treatment of a subject with a respiratory disease including lung cancer, chronic obstructive pulmonary diseases, emphysema or asthma. The protein is also useful for screening molecules or compounds to identify at least one ligand which specifically binds the protein. It is also useful for preparing and purifying a polyclonal or monoclonal antibody. This sequence corresponds to a protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                04-AUG-2003; 2003EP-00254857.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Marker gene related amino acid sequence SEQ ID NO:852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADJ75600 standard;
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                                                                                                                                                                                                                                                     (GENO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 114 AA;
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                                                                                                                                                                                       Sugita Y,
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                                                                                                                                                                                    Yamaya M,
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Pred. No. 7.2e-39;
; Mismatches 0;
                                                                                                                                                                                       Kubo H, Nagai H,
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CC obstructive pulmonary disease. The marker gene comprises: (a) a group of cells are stimulated with interleukin-13; or (b) a group of genes (S1) whose expression levels decrease when respiratory epithelial CC cells are stimulated with interleukin-13; or (b) a group of genes (S2) CC whose expression levels decrease when respiratory epithelial cells are computed with interleukin-13. Also described: (1) a reagent (I) for cells the stimulated with interleukin-13. Also described: (1) a reagent (I) for cells are compound for a therapeutic agent (CC cells a kit for screening for a candidate compound for a therapeutic agent (CC cells a kit for bronchial asthma or chronic obstructive pulmonary disease; (2) a nanimal model for bronchial asthma or chronic obstructive pulmonary disease; (3) a cells ease; (4) an inducer that induces bronchial asthma in a mouse; (5) a cells ease; (4) an inducer that induces bronchial asthma or chronic obstructive pulmonary disease, comprising the compound, cells ease; (6) a therapeutic agent for bronchial asthma or chronic obstructive pulmonary disease, comprising the compound, cells ease of the gene through an RNAi effect or an antibody recognising cells protein encoded by a marker gene; and (7) a DNA chip for testing for a chronic obstructive pulmonary disease, on which a cell probe has been immobilised to assay a marker gene. (1) has respiratory cells ease in the cativities, and can be used in gene therapy. The method cells useful for testing for or screening for a therapeutic agent for cells because is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              from a subject, comparing the expression level determined with the expression level of the marker gene in a biological sample from a healthy subject, and judging whether the subject has bronchial asthma or chronic subject, and judging whether the subject has bronchial asthma or chronic subject.
Sequence 114 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a method of testing for bronchial asthma or chronic obstructive pulmonary disease. The method comprises determining the expression level of a marker gene in a biological sample
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밁 Ş Best Loc Matches Query Match Local Similarity 21 μ. SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45 SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 65 Conservative 100.0%; 0, Score 45; DB 8; Pred. No. 7.2e-39; Mismatches 0 Length 114; Indels Gaps 0

Search completed: May . Job time : 91.9818 secs 4 2005, 14:25:11

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Result
No.
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seq length: 2000000000
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Match
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1 SCYFIPNEGVPGDST
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                  Issued_Patents_AA:*
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/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                           US-09-28-796A-19819
US-09-252-991A-19246
US-09-252-991A-27488
US-09-252-991A-23445
US-09-653-274-10
US-10-461-791-10
US-08-407-875-2
US-09-126-280-2
US-09-277-858-2
US-09-277-858-2
US-09-274-594-6
US-09-254-594-6
US-09-254-594-6
US-09-254-594-6
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US-08-125-077-17

US-09-949-016-6524

US-09-949-016-9608

US-09-189-039A-9744

US-09-134-000C-6535
                                                                                                                                                                                                                                                                                                            US-07-899-535A-1
US-09-513-999C-7807
US-09-999-535A-3
US-07-899-535A-3
US-09-270-767-57304
US-09-270-767-42047
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                 US-08-568-459A-2
US-08-487-826B-2
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Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 3, Appli
Sequence 6, Appli
Sequence 10905, A
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
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Sequence
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Sequence 57304, A
Sequence 42047, A
                                                                                                                            Sequence 10, Appl
Sequence 10, Appl
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| 45                | 44                | 43                | 42                | 41                  | 40                | 39                | 38                 | 37                | 36                | 35                | 34                | 33                | 32                | 31                | 30                 | 29                 | 28                 |
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| 5                 | ហ                 | ഗ                 | თ                 | ហ                   | σ                 | თ                 | თ                  | თ                 | თ                 | σ                 | თ                 | Q                 | σ                 | σ                 | თ                  | o,                 | σ                  |
| 11.1              | 11.1              | 11.1              | 11.1              | 11.1                | 13.3              | 13.3              | 13.3               | 13.3              | 13.3              | 13.3              | 13.3              | 13.3              | 13.3              | 13.3              | 13.3               | 13.3               | 13.3               |
| 7                 | σ                 | σ                 | 0                 | ຫ                   | 3111              | 3111              | 3110               | 3110              | 3110              | 3110              | 3110              | 3089              | 3088              | 3070              | 2123               | 1115               | 1115               |
| ۲                 | 4                 | $\vdash$          | -                 | 4                   | N                 | N                 | 4                  | 4                 | 4                 | 4                 | 4                 | 4                 | 4                 | 4                 | 4                  | σ                  | σ                  |
| US-07-791-213D-34 | US-09-101-272G-69 | US-08-293-150A-35 | US-07-791-213D-35 | US-09-101-272G-70   | US-08-125-077-4   | US-08-460-309-4   | US-09-949-016-5937 | US-09-917-254-86  | US-09-561-709B-7  | US-09-562-702A-6  | US-09-562-702A-2  | US-09-562-702A-4  | US-09-562-702A-8  | US-09-961-403-7   | US-09-949-016-7517 | 5198347-6          | 5198347-6          |
| Sequence 34, Appl | Sequence 69, Appl | Sequence 35, Appl | Sequence 35, Appl | Sequence 70, Appl . | Sequence 4, Appli | Sequence 4, Appli | Sequence 5937, Ap  | Sequence 86, Appl | Sequence 7, Appli | Sequence 6, Appli | Sequence 2, Appli | Sequence 4, Appli | Sequence 8, Appli | Sequence 7, Appli | Sequence 7517, Ap  | Patent No. 5198347 | Patent No. 5198347 |

ALIGNMENTS

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; HYPOTHETICAL: US-07-899-535A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 1
US-07-899-535A-1
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Appli
Patent No. 542801
                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PAREITIAN Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/899,535A
FILING DATE: 16-JUN-1992
                                                                                                                                                                                                                                                                                                                                 FILING COLLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Loud, George A.
NAME: Loud, George A.
                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 94 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Sheth, Anil R.
APPLICANT: Garde, Seema
APPLICANT: Panchal, Chandra J.
TITLE OF INVENTION: Pharmaceut:
TITLE OF INVENTION: Inhibiting
TITLE OF INVENTION: Adenocarcin
                                                                                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 25,814
REFERENCE/DOCKET NUMBER: S&
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-415-0960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                     STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                        TELEPHONE: 703-415-09
TELEFAX: 703-415-0962
TELEX: 24 8614
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ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 2001 Jefferson Davis Highway, Suite 306 CITY: Arlington STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Virginia
Y: U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mr. George Loud
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESS:
    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pharmaceutical Preparations For
Inhibiting Tumours Associated With Prostate
Adenocarcinoma, Stomach Cancer and Breast C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/07899535A
                                                                                                                                                                                                                                                                                                                        S&B-A835
    Score 45; DB 1;
Pred. No. 2e-40;
                      Length 94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Breast Cancer.
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Matches

Conservative

0;

Mismatches

Indels

0

Gaps

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SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45 SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-07-899-535A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; FEATURE:
; NAME/KEY: SIGNAL
; LOCATION: -20..-1
; OTHER INFORMATION: score 9
; OTHER INFORMATION: seq VVIFATFVTLCNA/SC
US-09-513-999C-7807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 7807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins Patent No. 6783961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
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PRIOR FILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/513,999C CURRENT FILING DATE: 2000-02-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Dumas Milne Edwards, J.B. APPLICANT: Duclert, A. APPLICANT: Giordano, J.Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patent.pm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: 59.US2.REG
                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Panchal, C
TITLE OF INVENTION: P
TITLE OF INVENTION: I
                                                                                                        ZIP: 22202
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
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tent No. 5428011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
                                      ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                 STREET: 2001 Jeff
CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
                                                                              APPLICATION NUMBER: US/07/899,535A FILING DATE: 16-JUN-1992
NAME: Loud, George A. REGISTRATION NUMBER: 25,814
                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 65
                                                                                                                                                                                                                                                                                                                           2001 Jefferson Davis Highway, Suite 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                  Mr. George Loud
                                                                                                                                                                                                                                                                                                                                                                                                       Pharmaceutical Preparations For
Inhibiting Tumours Associated With Prostate
Adenocarcinoma, Stomach Cancer and Breast C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 45; DB 4; I
100.0%; Pred. No. 2.3e-40;
tive 0; Mismatches 0;
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; ORGANISM: Drosophila melanogaster
US-09-270-767-57304
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; HYPOTHETICAL:
US-07-899-535A-3
                                                              ; ORGANISM: Drosophila melanogaster US-09-270-767-42047
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                                                                                                    APPLICANT: Homburger et al.

TITLE OF INVENTION: Nucleic acids and proteins
FILE REFERENCE: File Reference: 7326-094

CURRENT APPLICATION NUMBER: US/09/270,767

CURRENT FILING DATE: 1999-03-17

NUMBER OF SEQ ID NOS: 62517

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 42047

LENGTH: 514
                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Homburger et al.

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094

CURRENT APPLICATION NUMBER: US/09/270,767

CURRENT FILING DATE: 1999-03-17

NUMBER OF SEQ ID NOS: 62517

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 57304

LENGTH: 235
       Matches
                                                                                                                                                                                                                                                   Patent No. 670349:
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                                Query Match
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Best Local :
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Best Local (
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
                                                                                           TYPE: PRT
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TELEPAX: 703-415-0962
                    Local
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    Similarity 100 7; Conservative
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)GY: linear
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15.6%; Score 7; DB ...
100.0%; Pred. No. 6.0
tive 0; Mismatches
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                 Score 7; I
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     Mismatches
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6.6;
           DB
13;
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                               Length 514;
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US-08-125-077-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 13.3%;
Best Local Similarity 100.0%;
Matches 6; Conservative (
                                                                                                                                            Patent No. 5872231
Patent No. 5872231 5840863
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                                                                                                              GENERAL INFORMATION
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FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10
FILING DATE: 21-SEP-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/472,319
FILING DATE: 30-JAN-1990
PRIOR APPLICATION NUMBER: US 07/919,951
APPLICATION NUMBER: US 07/919,951
FILING DATE: 27-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (619) 535-89
INFORMATION FOR SEQ ID NO
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stent No. 5837496
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                         APPLICANT:
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TITLE OF INVENTION: Nucleic Acids Encoding Merosin,
TITLE OF INVENTION: Fragments and Uses Thereof
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APPLICANT: Engvall, Eva
APPLICANT: Leivo, Ilmo
NITLE OF INVENTION: Nuc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,81
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CLASSIFICATION: 435
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STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                   103 NCETCT 108
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                                                                                                                                                                                                                    Application US/08125077
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4370 La Jolla Village Drive, Suite 700
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Leivo, Ilmo
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22-SEP-1993
28-SEP-1993
28-SEP
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Nucleic Acids Encoding Merosin, Merosin
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US-08-125-077-17
                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                         SOFTWARE: FastSEQ
SEQ ID NO 6524
                                                                                                                                                                                                                                                                                                                                                                                     Sequence 6524, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING TOWNER: 60/237,768
                                                                                                 NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/125,077
PTILING DATA:
                                      LENGTH: 301
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FILING DATE: 30-JAN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/919,951
FILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 241 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US PCT/US 94/10730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Fragments and Uses Thereof NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 21-SEP-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 100.0%;
nes 6; Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                103 NCETCT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36 NCETCT 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                San Diego
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
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4370 La Jolla Village Drive, Suite
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100.0%; Pred. No.
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US-09-949-016-6524

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CURRENT APPLICATION NUMBER: US/09/489,039A
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 9744
LENGTH: 433
TYPE: PRT
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US-09-489-039A-9744
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US-09-949-016-9608
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                                                              Best Local Similarity
Matches 6; Conserv
                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 9608
LENGTH: 305
                                                                                                                                                                                                                                                                                                                                                                      Sequence 9744, Application US/09489039A Patent No. 6610836
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                                                                                                                                                                                                                                                                                     APPLICANT: Gary Breton et. al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: PNEMONIAE FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 2709.2004001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
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TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: VENTER, J.
                                                                                                                                          ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: CL001307
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les 6; Conserv
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nes 6; Conserv
                               22 KGNKHP 27
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KGNKHP 269
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                                                            Conservative
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                                                                          13.3%; Score 6; DB 4; Le 100.0%; Pred. No. 1.3e+02;
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o. 93;
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OF DETECTION AND USES
                                                            Indels
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NAME/KEY: misc feature

LOCATION: (B) LOCATION 1...454

SEQUENCE DESCRIPTION: SEQ ID NO: 4860:
US-09-107-532A-4860
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US-09-107-532A-4860
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PATENT: NO. 6583275
GENERAL INFORMATION:
APPLICANT: Lynn A Doucette-Stamm
TITLE OF INVENTION: NUCLEIC ACID
                                                                                                                                                                      Patent No. 6617156
                                                                                                                                                                                                                                                                                                                                                                                Matches
APPLICANT: Lynn Doucette-Stamm et al TITLE OF INVENTION: NUCLEIC ACID AND AMINO TITLE OF INVENTION: ENTERCOCCCUS FAECALIS FILE REFERENCE: 032796-032 US/09/134,000C CURRENT APPLICATION NUMBER: US/09/134,000C CURRENT FILING DATE: 1998-08-13 PRIOR APPLICATION NUMBER: US 60/055,778
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les 6; Conserv
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/085,598
FILING DATE: 14 May 1998
APPLICATION NUMBER: 60/051571
FILING DATE: July 2, 1997
ATTORNEY AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acids
TYPE: amino acid
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: YES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Ariniello, Pamela Deneke
REGISTRATION NUMBER: 40,489
REFERENCE/DOCKET NUMBER: GTC-01
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/107,532A
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MEDIUM TYPE: CD/ROM ISO9660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGINAL SOURCE:
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                                                                                                                                                                                                                                                                                              222 DLKGNK 227
                                                                                                                                                                                                                                                                                                                                   20 DLKGNK 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Enterococcus faecium
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OPERATING SYSTEM: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (781)893-5007
TELEFAX: (781)893-8277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: ASCI
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100.0%; Pr
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AND AMINO ACID SEQUENCES RELATING TO
FAECIUM FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                               DB 4; Le
                                                                                 ACID SEQUENCES RELATING TO FOR DIAGNOSTICS AND THERAPEUTICS
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RESULT 14
US-09-252-991A-19246
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                                                    ; LENGTH: 479
TYPE: PRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-19246
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US-09-248-796A-19819
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PRIOR FILING DATE: 1998-08-13
NUMBER OF SEQ ID NOS: 28208
SEQ ID NO 19819
LENGTH: 460
TYPE: PRT
                                                                                                                    PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 19246
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Matches
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                                                                                                                                                                                                                                                                                                                                                              Sequence 19246, Application US/09252991A Patent No. 6551795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 19819, Application US/09248796A Patent No. 6747137 GENERAL INFORMATION:
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 6535
Query Match
Best Local Similarity
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICAN
TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.132
CURRENT APPLICATION NUMBER: US/09/248,796A
CURRENT FILING DATE: 1999-02-13
PRIOR FILING DATE: 1998-02-13
PRIOR FILING DATE: 1998-02-13
                                                                                                                                                                                                                                  FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
                                                                                                                                                                                                                                                                                   APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 1997-08-15
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llarity 100.0%; Pred. No.
Conservative 0; Mismatch
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100.0%; Pr
13.3%; Score 6; 1
100.0%; Pred. No.
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 DB 4; Length 479; . 1.4e+02;
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Search completed: May 4, 2005, 14:37:23 Job time : 23.0727 secs
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US-09-252-991A-27888
                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US PRIOR FILING DATE: 1998-07-27 NUMBER OF SEQ ID NOS: 33142 SEQ ID NO 27888 LENGTH: 503
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 27888, Application US/09252991A Patent No. 6551795
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AMD AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 199-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18
                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Pseudomonas aeruginosa
                                                               123 NEGVPG 128
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Pred. No. 1.4e+02
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seq length: 2000000000
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 US-09-977-406A-88
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US-10-857-358-2
US-10-857-358-2
US-10-12-896-1003
US-10-105-833-271
US-10-144-678A-1003
US-10-294-025-1003
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| 45                | 44                | 43                | 42                | 41       | 40                | 39                | 38                | 37                | 36                | 35                |                   |              | 32      |                | 30             |                |                | 27     |        | 25             |                   | 23 | 22            | 21            |               | 19                | 18             | 17                |                   | 15                 | 14                 |
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| 17                | 18                | 19                | 20                | 21       | 22                | 23                | 24                | 25                | 26                | 27                | 28                | 29           | 29      | 29             | 30             | u<br>ت         | 32             | ω<br>ω | υ<br>4 | ω<br>G         | 36                | 37 | 38            | 39            | 40            | 41                | 42             | 43                | 44                | <b>4</b><br>5      | 45                 |
| 37.8              | 0                 | 42.2              | 4.                | 46.7     | 8                 | 51.1              |                   |                   | 7.                | 60.0              | 'n                | 4            | ٠       | ٠.             | 66.7           | •              | •              | 73.3   | •      | 77.8           | •                 | •  | •             | 86.7          | •             | •                 | •              | •                 | •                 | 00.                | 100.0              |
| 17                | 18                | 19                | 20                | 21       | 22                | 23                | 24                | 25                | 26                | 27                | 28                | 119          | 119     | 29             | 30             | 31             | 32             | 33     | 34     | 35             | 36                | 37 | 38            | 39            | 40            | 41                | 42             | 43                | 44                | 132                | 114                |
| 10                | 10                | 10                | 10                | 10       | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 15           | 15      | 10             | 5              | 5              | 10             | 10     | 10     | 10             | 10                | 10 | 10            | 10            | 10            | 10                | 10             | 10                | 10                | 9                  | 16                 |
| US-09-977-406A-60 | US-09-977-406A-61 | US-09-977-406A-62 | US-09-977-406A-63 | -09-977- | US-09-977-406A-65 | US-09-977-406A-66 | US-09-977-406A-67 | US-09-977-406A-68 | US-09-977-406A-69 | US-09-977-406A-70 | US-09-977-406A-71 | -10-221-278- | -10-291 | -09-977-406A-7 | -09-977-406A-7 | -09-977-406A-7 | -09-977-406A-7 | -09-9  | -09-   | -09-977-406A-7 | US-09-977-406A-79 | ő  | -09-977-406A- | -09-977-406A- | -09-977-406A- | US-09-977-406A-84 | -09-977-406A-8 | US-09-977-406A-86 | US-09-977-406A-87 | US-09-925-300-1027 | US-10-408-765A-532 |
|                   | Sequence 61       | Φ                 | Œ                 | Ø        | æ                 | O                 |                   |                   |                   |                   |                   |              | 61      | 72             |                |                |                |        |        | Sequence 78    |                   |    | æ             | Sequence 82   | æ             | æ                 | æ              | ര                 | æ                 | 102                | Sequence 53        |
| , Appl            | -                 | •                 | •                 | •        | , Appl            | •                 | •                 | •                 | •                 | •                 | •                 |              | •       | •              | •              | •              | Appl           | •      | •      | , Appl         | •                 | •  | •             | •             | -             | •                 | -              | -                 | >                 | 7, Ap              | 32, App            |

## ALIGNMENTS

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RESULT 2
US-09-977-406A-1
; Sequence 1, Application US/09977406A
                                                                                                                                                                                                                                                                                                                             ; FEATURE:
; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
US-09-977-406A-88
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US-09-977-406A-88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: PROCYON BIOPHARMA INC.

TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS

FILE REFERENCE: 06508-030-US-03

CURRENT APPLICATION NUMBER: US/09/977,406A

CURRENT FILING DATE: 2001-10-15

PRIOR APPLICATION NUMBER: CA 2,321,256

PRIOR FILING DATE: 2000-10-16

PRIOR APPLICATION NUMBER: CA 2,355,334

PRIOR APPLICATION NUMBER: CA 2,355,334

PRIOR PILING DATE: 2001-08-20

NUMBER OF SEQ ID NOS: 92

SOPTWARE: Patentin version 3.1

SEQ ID NO 88

LENGTH AS
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Best Local Similarity
Matches 45; Conserv
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Publication No. US20030170220A1
                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 45
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                            1 SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45
                                                                                                                                SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET
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; DATABASE ACCESSION NUMBER: GI 131436 ; DATABASE ENTRY DATE: 1988-08-01 US-10-291-360-1
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: BSP-94: Use for Treatment of Hypercalcemia and Bone metastasis
FTLE REFERENCE: 05508-051-US-02
FTLE REFERENCE: 05508-051-US-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/291,360 CURRENT FILING DATE: 2002-11-08 PRIOR APPLICATION NUMBER: CA 2,361,736 PRIOR FILING DATE: 2001-11-08 NUMBER OF SEQ ID NOS: 6 SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15 PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR FILING DATE: 2000-10-16 PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR FILING DATE: 2001-08-20 NUMBER OF SEQ ID NOS: 92 NUMBER OF SEQ ID NOS: 93 NUMBER: Patentin version 3.1
                                                                                                                                        TITLE: Molecular cloning of a small prostate protein, known as beta-
TITLE: microsemenoprotein, PSP94 or beta-inhibin, and demonstration of transcripts
TITLE: non-genital tissues.
JOURNAL: Biochem. Biophys. Res Commun.
                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens PUBLICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
                                                                      ISSUE: 3
PAGES: 1310-1315
DATE: 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens PUBLICATION INFORMATION:
                                                                                                                                                                                                                                                                      AUTHORS: Ulvsback, M., Lindstrom, C., Weiber, H., Abrahamson, P.A., Lilja, H., AUTHORS: Lundwall, A"
                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DATABASE ACCESSION NUMBER: GI 131436
DATABASE ENTRY DATE: 1988-08-01
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PAGES: 1310-1315
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE: Molecular cloning of a small prostate protein, TITLE: microsemenoprotein, PSP94 or beta-inhibin, and TITLE: non-genital tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS: Ulvsback, M., Lindstrom, C., Weiber, H., Abrahamson, AUTHORS: Lundwall, A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 94
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                      ENGTH: 94
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US-09-977-406A-2
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                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
                                     SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/09977406A Publication No. US20030170220A1
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- Tocal Similarity
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Publication No. US20050026833A1
GENERAL INFORMATION:
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Best Local Similarity
Matches 45; Conserv
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                                                                                                   PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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PRIOR FILING DATE: 2001-11-08
PRIOR APPLICATION NUMBER: US 10/291,360
PRIOR FILING DATE: 2002-11-08
NUMBER OF SEQ ID NOS: 7
                                                                                   NUMBER OF SEQ ID NOS: 92
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ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
AUTHORS: Ulveback, M., Lindstrom, C., Weiber, H., Abrahamson, P.A., Lilja, H.,
AUTHORS: Lundwall, A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/10/857,358
CURRENT FILING DATE: 2004-06-01
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TITLE OF INVENTION: PSP-94: Use for Treatment of Hypercalcemia and Bone metastasis
FILE REFERENCE: 06508-153
LENGTH: 102
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE: microsemenoprotein, TITLE: non-genital tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DATABASE ACCESSION NUMBER: GI 131436
DATABASE ENTRY DATE: 1988-08-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ISSUE: 3
PAGES: 1310-1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE: non-genital JOURNAL: Biochem. VOLUME: 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE: Molecular cloning of a small prostate protein, TITLE: microsemenoprotein, PSP94 or beta-inhibin, and
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; OTHER INFORMATION: recombinant human PSP94 (rHuPSP94) produced from yeast
US-10-291-360-2
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                                                                       ; OTHER INFORMATION: recombinant human PSP94 (rHuPSP94) produced from yeast
US-10-857-358-2
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Publication No. US20050026833A1
GENERAL INFORMATION:
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                                                                                                                                                            NUMBER OF SEQ ID NOS: 7
SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
LENGTH: 102
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Best Local Similarity
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Best Local Similarity
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LENGTH: 102
 Matches
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CURRENT FILING DATE: 2004-06-01
PRIOR APPLICATION NUMBER: CA 2,361,736
PRIOR FILING DATE: 2001-11-08
PRIOR APPLICATION NUMBER: US 10/291,360
PRIOR FILING DATE: 2002-11-08
                                                                                                                                                                                                                                                                                                                                               APPLICANT: PROCYON BIOPHARMA INC. TITLE OF INVENTION: PSP-94: Use for Treatment of Hypercalcemia and Bone metastasis FILS REFERENCE: 06508-153
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PRIOR FILING DATE: 2001-11-08
NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin version 3.1
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CURRENT APPLICATION NUMBER: US/10/291,360
CURRENT FILING DATE: 2002-11-08
                                                                                                                                             LENGTH: 10
TYPE: PRT
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                                                                                                         ORGANISM: Artificial Sequence FEATURE:
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Local Similarity nes 45; Conserv
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100.0%; Pred. No. 1e-40;
                100.0%; Score 45; DB 17; Length 102; 100.0%; Pred. No. 1e-40;
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US-10-205-823-271
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                                                                                                                                                                                                                   Sequence 271, Application US/10205823 Publication No. US20030108963A1
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Best Local Similarity
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 1003
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Publication No. US20020183251A1
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APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer L.
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APPLICANT:
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                                                                                                                                                                             APPLICANT: Schlegel, Robert
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CURRENT FILING DATE: 2001-12-10
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                                 Hoersch, Sebastian
Kamatkar, Shubhangi
Wonsey, Angela M.
Glatt, Karen
                                                                                                       Gannavarapu, Manjula
Gorbatcheva, Bella
                                                                                                                                           Monahan, John Endege, Wilson
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Vinals de Bassols, Carlota
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Hepler, William T.
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Carter, Darrick
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Kalos, Michael D.
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                Zhao, Xume:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Teresa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            John
                                                                                                                                                            John E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yoshihiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Susan L.
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APPLICANT: Meagher, Madeleine Joy
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45
: Anderson, Dustin INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 45; DB 13; 100.0%; Pred. No. 1.2e-40;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 114;
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-144-678A-1003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT FILLING DATE: 2002-07-25
PRIOR APPLICATION NUMBER: 60/307,982
PRIOR FILLING DATE: 2001-07-25
PRIOR APPLICATION NUMBER: 60/314,356
PRIOR PILLING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/325,020
PRIOR FILING DATE: 2001-09-25
PRIOR APPLICATION NUMBER: 60/341,746
PRIOR FILING DATE: 2001-12-12
PRIOR FILING DATE: 2001-12-12
PRIOR APPLICATION NUMBER: 60/362,158
PRIOR FILING DATE: 2002-03-05
NUMBER: 60/362,158
                                                                                SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 271
LENGTH: 114
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Best Local Similarity
                                                                                                                      APPLICANT: Deng, TaTITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER FILE REFERENCE: 210121.427C28
CURRENT FILING DATE: 2002-08-12
NUMBER OF SEQ ID NOS: 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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                                                                  ENGTH: 114
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                                                                                                                                                                                                                                                                                McNeill, Patricia D.
Houghton, Raymond L.
Vinals y de Bassols, C
Foy, Teresa M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fanger, Gary R. Retter, Marc W. Stolk, John A.
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Hepler, William T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Harlocker, Susan L.
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Dillon, Davin C.
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                                                                                                                                                                                                                                                           Watanabe, Yoshihiro
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Carter, Darrick
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Samuel X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craig n.
                                                                                                                                                                                                                                                                                                                                                              John
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Robert A.
                                                                                                                                                                                                                                                                                                      Carlota
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RESULT 12
US-10-291-172-236
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                                                                                      US-10-291-172-236
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                                                                                                                                                                   PRIOR APPLICATION NUMBER: 09/519,705
PRIOR FILING DATE: 2000-03-07
NUMBER OF SEQ ID NOS: 752
SEQ ID NO 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 1003
LENGTH: 114
TYPE: PRT
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Publication No. US20030185830A1
GENERAL INFORMATION:
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Best Local Similarity
Matches 45; Conserv
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  Best Local Similarity
Matches 45; Conserv
                                         Query Match
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APPLICANT: Stolk, John A.
APPLICANT: Stolk, John A.
APPLICANT: Stolk, John A.
APPLICANT: Kalos, Michael D.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C29
CURRENT FILING DATE: 2002-11-12
CURRENT FILING DATE: 2002-11-12
NUMBER OF SEQ ID NOS: 1038
                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/291,172
CURRENT FILING DATE: 2000-11-08
PRIOR APPLICATION NUMBER: 09/693,267
PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 09/665,363
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: 09/616,847
PRIOR FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: 09/596,193
PRIOR FILING DATE: 2000-06-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Hyseq, Inc
TITLE OF INVENTION: No. U
FILE REFERENCE: 21272-045
                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 09/574,454 PRIOR FILING DATE: 2000-05-19
                                                                                             LENGTH: 114
TYPE: PRT
ORGANISM: Homo sapiens
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    Conservative
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                   100.0%; Score 45; DB 15; 100.0%; Pred. No. 1.2e-40;
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  Mismatches
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                                       Length 114;
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; ORGANISM: Homo sapiens
US-10-408-765A-532
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LENGTH: 114
TYPE: PRT
                                                                                                                                                                                                                PILE REFERENCE: 660088.465
CURRENT APPLICATION NUMBER: US/10/408,765A
CURRENT FILING DATE: 2003-04-04
NUMBER OF SEQ ID NOS: 3077
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 532
                                                               Query Match
Best Local Similarity
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                                            Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens -10-221-278-236
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Ghosh, Soumitre
APPLICANT: Fahy, Eoin D.
APPLICANT: Zhang, Bing
APPLICANT: Gibson, Bradfo
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PRIOR FILING DATE: 2000-03-07
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CURRENT EILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: 09/693,267
PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                          APPLICANT: WATNOCK, Dale E.
TITLE OF INVENTION: TARGETS FOR THERAPEUTIC INTERVENTION
TITLE OF INVENTION: IDENTIFIED IN THE MITOCHONDRIAL PROTEOME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RPPLICANT: Hyseq, Inc
FITLE OF INVENTION: No. US20040034208Alel Nucleic Acids and Polypeptides
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                                                                                                                                                                                                      ENGTH: 114
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DR FILLING DATE: 2000-07-14
DR APPLICATION NUMBER: 09/596,193
DR FILLING DATE: 2000-06-17
DR APPLICATION NUMBER: 09/574,454
DR FILLING DATE: 2000-05-19
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                                            45;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45
1 SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45
                                                                                                                                                                                                                                                                                                                                                                                                                           Gibson, Bradford W.
Taylor, Steven W.
Glenn, Gary M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/10408765A
o. US20040101874A1
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                                            Conservative
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                                       100.0%; Score 45; DB 16; Length 114; 100.0%; Pred. No. 1.2e-40; tive 0; Mismatches 0; Indels
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                                          Gaps
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CURRENT APPLICATION NUMBER: US/09/925,300
CURRENT FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05988
PRIOR FILING DATE: 2000-03-08
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 1890
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 1027
LENGTH: 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09,925-300-1027
; Sequence 1027, Application
; Patent No. US20020151681A1
; GENERAL INFORMATION:
Search completed: May 4, Job time: 50.2364 secs
                                                                                  밁
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                                                                                                                                                                                                                                                  ; ORGANISM: Homo sapiens
US-09-925-300-1027
                                                                                                                                                                  Matches
                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Craig Rosen, APPLICANT: Steve Ruber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: PA101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Steve Ruben
TITHE OF INVENTION: Nucleic Acids, Proteins and Antibodies
                                                                                                                                                                                   Local Similarity
                                                                                  39
                                                                                                                       1 SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 65
                                                                                SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 83
                                                                                                                                                                  Conservative
                                                                                                                                                                                 100.0%; Score 45; DB 9; 1 100.0%; Pred. No. 1.3e-40;
                   2005, 15:24:08
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                                                                                                                                                                  0,
                                                                                                                                                                  Mismatches
                                                                                                                                                                                                       Length 132;
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Result
No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM protein - protein search, using sw model
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Listing first 45 summaries
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Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
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        Pred. No. is the number of results predicted by chance to have score greater than or equal to the score of the result being p and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
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Match Length DB
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45
1 SCYFIPNEGVPGDSTRKCMD......HPINSEWQTDNCETCTCYET 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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Copyright (c) 1993 - 2005 Compugen Ltd.
                                   D96614
A351593
A351598
C83598
T50982
C83598
B71677
G97773
G97738
T34556
T38489
E896744
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PSP57 - h
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| 45                 | 44                 | 43                 | 42                 | 41                 | 40                 | 39                 | 38                 | 37                 | 36                 | 35                 | 34                 | 33                 | 32                 | 31                 | 30                 |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| ທ                  | ຫ                  | v                  | ហ                  | U                  | თ                  | σ                  | 0                  | σ                  | σ                  | 9                  | σ                  | σ                  | თ                  | σ                  | σ                  |
| 11.1               | 11.1               | 11.1               | 11.1               | 11.1               | 13.3               | 13.3               | 13.3               | 13.3               | 13.3               | 13.3               | 13.3               | 13.3               | 13.3               | 13.3               | 13.3               |
| 38                 | 36                 | 35                 | 20                 | 18                 | 3329               | 3329               | 3328               | 1696               | 1496               | 1460               | 1295               | 1140               | 1070               | 966                | 960                |
| 2                  | N                  | N                  | N                  | N                  | N                  | N                  | N                  | N                  | N                  | 2                  | N                  | N                  | N                  | N                  | N                  |
| JN0613             | A38729             | G60529             | S00492             | T13132             | T30904             | T42205             | T30835             | T23617             | T19833             | T00095             | A32901             | T24213             | T30848             | G69189             | S54461             |
| defensin 4K - scor | pyruvate decarboxy | hemocyanin M3' - c | hemocyanin chain I | protein gp45.1 - p | breast cancer tumo | breast cancer susc | breast cancer tumo | hypothetical prote | hypothetical prote | hypothetical prote | glp1 protein precu | hypothetical prote | Duffy receptor - P | hypothetical prote | hypothetical prote |

## ALIGNMENTS

|                            | ATTORNOTO  |
|----------------------------|--|
| ;                          | RESULT 1 A34567 heta-microseminoprofein precursor - human  |
|                            | Deta-microseminoprotein precursor - numan<br>N;Alternate names: beta-inibin; prostatic secretory protein; PSP-94; seminal plasma pro   |
|                            | C;Accession: A34567; A26451; A29777; A30984; A60673; S16238; 152682  |
|                            | R;Green, C.B.; Liu, W.Y.; Kwok, S.C.M. Biochem Biophys Res. Commun. 167. 1184-1190. 1990   |
|                            | A;Title: Cloning and nucleotide sequence analysis of the human beta-microseminoprotein go A;Reference number: A34567; MUID:90211299; PMID:2322265                                  |
|                            | A; Accession: A34567   |
|                            | A; Molecule type: DNA  |
| ve a                       | A) Residues: 1-114 «GRB»   |
| princea,                   | A;Cross-Tererences: UNIFROT:FV8LIB; GB:M343/6; NID:GD143/0; FILM:AAAD96/1.11; FIL:GD143/2 R;Mbikay, M.; Nolet, S.; Fournier, S.; Benjannet, S.; Chapdelaine, P.; Paradis, G.; Dube |
| ,                          | A;Title: Molecular cloning and sequence of the cDNA for a 94-amino-acid seminal plasma p   |
|                            | A;Reterence number: A26451; MOID:8/161231; PMID:3829888 A;Accession: A26451  |
| cion                       | A; MOLECULE Cype: mxNA  A: Residings: 1=114 AMRT.  |
| croseminopr                |  |
| plasma pro                 | R;AKlydma, N.; IOBILIONA, I.; SCIMILIO, N.; OLLINEI, G.U.; ILOXIEI, N.F.; IBUGA, N.; RALEA, P. BLOCHIM. Biophys. Acta 829, 288-294, 1985   |
| ed hypothet                | A; Title: The amino acid sequence of human beta-microseminoprotein.  |
| e tadD17 pr<br>croseminopr | A;Reterence number: A29777; MUID:85199974; PMID:3995056<br>A;Accession: A29777   |
| tical 105 p                | A; Molecule type: protein  |
| tical prote                | R;Seddah, N.G.; Arbatti, N.J.; Rochemont, J.; Sheth, A.R.; Chretien, M.  |
| tical prote                | FEBS Lett. 175, 349-355, 1984  |
| tical prote                | A; Reference number: A30984; MUID:85004133; PMID:6434350   |
| me cytochro                | A;Accession: A39984<br>A:Mojecule tvoe: notein   |
| tion elonga                |  |
| tion elonga                | Am. J. Pathol. 137, 593-604, 1990  |
| recognition                | A; Title: Beta microseminoprotein is not a prostate-specific protein.  |
| ne kinase s                | A;Reterence number: A60673; MULD:90379237; PMID:2205099 A;Accession: A60673  |
| ne kinase s                | A; Molecule type; protein  |
| e - fission                | A; Experimental source: gastric juice  |
| protein [i                 | R;NoLet, S.; Mbikay, M.; Chrethen, M.<br>Riophim Riophya para 1080 247-240 1001  |
| ropic gluta                | Prostatic secretory protein  |
| tical prote                | A;Reterence number: S1623/; MULD:912/1435/; PMLD:2U94385 A;Accession: S16238   |
| tical prote                | A; Molecule type: DNA  |

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N;Alternate names: prostatic secretory protein PSP94
C;Species: Macaca mulatta (rhesus macaque)
C;Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
C;Accession: $16237; A54663
R;Nolet, S.; Mbikay, M.; Chretien, M.
Biochim. Biophys. Acta 1089, 247-249, 1991
A;Title: Prostatic secretory protein PSP(94): gene organization
A;Reference number: $16237; MUID:91274357; PMID:2054385
A;Accession: $16237
  A; Molecule type: DNA
A; Residues: I-114 <NO2>
A; Cross-references: UNIPROT: P25142;
A; Note: the authors translated the c
                                                                                                                                                                                                                                                     seminal plasma protein PSP-94 precursor - rhesus macaque N;Alternate names: prostatic secretory protein PSP94
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A;Residues: 1-77 <XUA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Xuan, J.W.; Chin, J.L.; Guo, Y.; Chambers, A.F.; Finkelman, submitted to the EMBL Data Library, March 1995
A;Reference number: G08240
A;Accession: G01730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Homo sapiens (man)
C;Date: 21-Dec-1996 #sequence
C;Accession: G01730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-114 <NOL>
A;Residues: 1-114 <NOL>
A;Cross-references: EMBL:X57928; NID:g35760; PIDN:CAA41002.1; PID:g825707
A;Note: the authors translated the codon ACT for residue 54 as Trp
R;Liu, A.Y.; Bradner, R.C.; Vessella, R.L.
Cancer Lett. 74, 91-99, 1993
                                                                                                                                                                                                                                                                                                          A54663
                                                                                                                                                                                                                                                                                                                            RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Superfamily: seminal plasma protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:P08118; EMBL:U22178; NID:g885984; PIDN:AAA83556.1; PID:g8859
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A;Residues: 1-114 <RES>
A;Cross-references: GB:S67815; NID:g460568; PIDN:AAB29732.1; PID:g460569
C;Comment: This protein is a component of seminal plasma as well as secretory fluids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cancer Lett. 74, 91-99, 1993

A;Title: Decreased expression of prostatic secretory protein
A;Reference number: I52682; MUID:94115955; PMID:7506990
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A;Map position: 10q11.2-10q11.2
A;Introns: 1/3; 37/1; 72/2
C;Superfamily: seminal plasma protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Genetics:
A;Gene: GDB:MSMB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                    Species: Macaca mulatta (rhesus macaque);Date: 02-Jun-1995 #text_change 09-Jul-2004
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Matches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1-20/Domain: signal sequence #status predicted 21-114/Product: seminal plasma protein #status

    human

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                                                                                                                                                                                                                                                                                                                                                                                                                           SCYFIPNEGVPGDSTR 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCYFIPNEGVPGDSTRKCMDLKGNKHPINSEWQTDNCETCTCYET 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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%; Pred. No. 1.6
0; Mismatches
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  codon ACT for residue 54
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Pred. No.
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Mismatches 0;
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    ; PIDN:CAA41003.1; PID:g82915
as Trp
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A;Cross-references: UNIPROT:053551;
A;Experimental source: strain H37Rv
C;Genetics:
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Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Snature 393, 537-544, 1998
A;Authors: Sqares, F.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Bara;Title: Deciphering the biology of Mycobacterium tuberculosis from A;Reference number: A70500; MUID:98295987; PMID:9634230
A;Accession: D70806
                                                                                                                                                                                                                                     probable fadD17 protein - Mycobacterium tuberculosis (strain H37RV)
C;Species: Mycobacterium tuberculosis
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              th, T.; Connercus, ..., P.
S.; Moule, S.; O'Gaora, P.
Nature 413, 848-852, 2001
Nature 413, 848-852, 2001
A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.;
A;Authors: Parry Genome sequence of a multiple drug resistant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        conserved hypothetical protein STY2382 [imported] - Salmonella enterica subspecies: Salmonella enterica subsp. enterica serovar Typhi A;Note: this species has also been called Salmonella typhi C;Date: 09-Nov-2001 #sequence_revision 09-Nov-2001 #text_change 18-Nov-2002 C;Accession: AF0776 R;Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, Cth, T; Connerton, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White
                                                                                                                                                        R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares,
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AF0776
A;Residues:
            A; Molecule type: DNA
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A; Residues: 1-93 < PAR>
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A;Introns: 1/3; 37/1; 72/2
C;Superfamily: seminal plasma protein
E;1-20/Domain: signal sequence #status
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Genomics 9, 775-777, 1991
A;Title: Rapid evolution of
A;Reference number: A54663;
A;Accession: A54663
                                                                                                                                                                                                                        C; Accession: D70806
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A;Residues: 1-114 <NOL>
A;Cross-references: GB:M92161; NID:g342280;
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                                  Status: preliminary; nucleic
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Gene: STY2382
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1-502 <COL>
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b; Pred. No. 1.3
0; Mismatches
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UNIPROT: 053551; GB: AL022022;

GB:AL123456; NID:g3261554; PIDN:CAA17742

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RESULT 8
H86662
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A;Cross-references: UNIPROT:Q52097; GB:D88554; DDBJ:D30039; NID:g1813427; PIDN:BAA13643.
A;Cross-references: UNIPROT:Q52097; GB:D88554; DDBJ:D30039; NID:g1813427; PIDN:BAA13643.
C;Comment: This protein shows homology with pyruvate dehydrogenase (lipoamide), and may C;Superfamily: pyruvate dehydrogenase (lipoamide); thiamin pyrophosphate-binding domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   beta-microseminoprotein - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change
                                               thiol peroxidase (EC 1.11.1.-) [imported] - Lactococcus lactis subsp. lactis c;Species: Lactococcus lactis subsp. lactis f;Species: Lactococcus lactis subsp. lactis C;Date: 23-Mar-2001 #sequence_revision 23-Mar-2001 #text_change 09-Jul-2004 C;Accession: H86662
                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Structural analysis of the L-methionine gamma-lyase gene from Pseudomonas A;Reference number: JC4174; MUID:96172583; PMID:8586629 A;Accession: PC4046
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R;Inoue, H.; Inagaki, K.; Sugimoto,
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              R;Bolotin, A.; Wincker, P.; Mauger, S.; Jaillon, O.; Malarme, K.; Weissenbach, Genome Res. 11, 731-753, 2001
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C;Date: 04-Oct-1995 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
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A;Residues: 1-91 <FER>
C;Superfamily: seminal plasma protein
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   A;Title:
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C; Superfamily: thioredoxin
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A, Introns: 90/1
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A;Accession: T41423
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Query Match
Best Local S
Matches 6
                                                                                                                                       ;Genetics:
                                                                                                                                                                                                             ;Molecule type: DNA
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                                                                   ;Superfamily:
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Similarity 100 6; Conservative
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                                                                  Neurospora
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hypothetical protein B23L21.320 [import C;Species: Neurospora crassa C;Date: 02-Jun-2000 #sequence_revision
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C;Genetics:
                                                                                                                                                      A;Residue: 1-226 <SCH>
A;Residue: 1-226 <SCH>
A;Cross-references: EMBL:AL356172; GSPDB:GN00116; NCSP:B23L21.320
A:Experimental source: BAC clone B23L21; strain OR74A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 1-160 <STO>
A;Cross-references: UNIPROT:Q9CIQ2; GB:AE005176; PID:g12723168; PIDN:AAK04402.1; GSPDB:G
A;Experimental source: strain IL1403
                                                                                                                                                                                                                                                                                         submitted to the Protein Sequence A:Reference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Reference number: A86625; MUID:21235186; PMID:11337471 A;Accession: H86662
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R_iWood, V_{\cdot,i} Rajandream, M.A.; Barrell, B.G.; Murphy, submitted to the EMBL Data Library, September 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Schizosaccharomyces pombe
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change
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               13.3%;
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                                                                       crassa hypothetical protein B23L21.320
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Score 6; DB 2;
Pred. No. 36;
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Pred. No.
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34;
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Gaps

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Science 294, 849-852, 2001
Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J. A;Title: Comparative genomics of Listeria species.
                                                                        RESULT 13
JC7094
        nine-heme cytochrome c - Desulfovibrio desulfuricans C;Species: Desulfovibrio desulfuricans C;Date: 03-Dec-1999 #sequence revision 03-Dec-1999 #
                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Deminguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Kawarabayasi, Y.; Sawada, M.; Horikawa, H.; Haikawa, Y.; Hino, Y.; Yamamoto, S.; Seki M.; Ohfuku, Y.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kushida, N.; Oguci DNA Res. 5, 55-76, 1998
A;Title: Complete sequence and gene organization of the genome of a hyper-thermophilic A;Teference number: A71000; MUID:98344137; PMID:9679194
                                                                                                                                                                                                                                                                                                                              A;Gene: lmo1638
                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypothetical protein lmo1638 [imported] - Listeria
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Status: preliminary
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A; Residues: 1-239 < KAW>
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;Residues: 1-324 cGLA>
;Cross-references: UNIPROT:Q8Y6P6; GB:NC_003210; PIDN:CAC99716.1; PID:g16411074; GSPDB
;Experimental source: strain EGD-e
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Best Local S
Matches 6
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Best Local
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; Jones, L.M.; Karst, U
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#text_change 09-Jul-2004
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Fsihi, H.
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                                                                                                                                                                                      translation elongation factor eEF-1 alpha chain - A
C;Species: Ashbya gossypii
C;Date: 19-Mar11997 #sequence_revision 06-Jun-1997
C;Accession: S41593
                                         A; Molecule type: DNA
A; Residues: 1-458 <STE>
                                                                                                     R;Steiner, S.; Philippsen, P.
Mol. Gen. Genet. 242, 263-271, 1994
A;Title: Sequence and promoter analysis of
A;Reference number: S41593; MUID:94150459;
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                                                                                     A;Accession: S41593
                     ;Cross-references: UNIPROT:P41752; EMBL:X73978; NID:g456717; PIDN:CAA52157.1;
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C;Accession: D96614

R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Creasy, T. Chin, C.W.; Chung, N.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T. Chin, C.W.; Chung, N.K.; Conmay, A.B.; Conway, A.B.; Creasy, T. Chin, C.W.; Chughes, B.; Huizar, L.

Nature 408, 816-820, 2000

A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khay)

C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Mait: Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.

Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.

A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; S.

A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; S.

ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A;Tile: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

**Paference number: A86141; MUID:21016719; PMID:11130712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Accession: JC7094
R;Saraiva, L.M.; da Costa, P.N.; LeGall, J.
Biochem. Biophys. Res. Commun. 262, 629-634, 1999
A;Title: Sequencing the gene encoding Desulfovibrio desulfuricans ATCC 27774 nine-heme
A;Reference number: JC7094; MUID:99400423; PMID:10471375
                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-405 < STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypothetical C; Species: A:
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C;Keywords:
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C;Genetics:
                                                                                                                                                                                                                                                         A; Cross-references: UNIPROT: Q9C537;
                                                                                                                                                                                                                                                                                                                           A; Status: preliminary
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                                                                                            Matches
                                                                                                                                        Query Match
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388
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Arabidopsis thaliana (mouse-ear cress)
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6; Conserv
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                                                                                          Similarity 6; Conserv
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PGDSTR 393
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t; Pred. No. 50;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C.J.; Federspiel, N.A.; Kaul, S.; White, Conway, A.B.; Conway, A.R.; Creasy, T.H.;
                                                                                            Mismatches
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Maiti, R.; Marziali,
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the highly expressed PMID:8107673

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Ashbya gossypii

#text\_change 09-Jul-2004

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A;Gene: TEF
C;Keywords: GTP binding; methylated amino acid; nucleotide binding; P-loop; protein bios F;8-156/Domain: translation elongation factor Tu homology cETU>
F;14-21/Region: nucleotide-binding motif A (P-loop)
F;153-156/Region: GTP-binding NKXD motif
F;30/Modified site: N6.M6-trimethyllysine (Lys) #status predicted
F;79/Modified site: N6,N6,N6-trimethyllysine (Lys) #status predicted
F;390/Modified site: N6.M6-dimethyllysine (Lys) #status predicted
F;390/Modified site: N6-methyllysine (Lys) #status predicted

Query Match
S; Score 6; DB 2; Length 458;
Best Local Similarity 100.0%; Pred. No. 68;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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45
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2: uniprot_trembl:*
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MSMB_MACMU
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Q6K8Y1
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sus scrofa
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|            | 45                 | 44                 | 43         | 42       | 41                 | 40         | 39                 | 38                 | 37                 | 36                 | 35                 | 34     | 33                 | 32                |
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|            | 232                | 232                | 232        | 232      | 225                | 223        | 219                | 215                | 198                | 196                | 189                | 185    | 185                | 180               |
|            | N                  | N                  | N          | N        | N                  | _          | N                  | N                  | N                  | N                  | N                  | N      | N                  | N                 |
| ALIGNMENTS | Q6JKX0             | Q6JKW9             | Q6JKW8     | Q6JKW5   | Q6XW07             | EMBP MOUSE | Q91151             | 074897             | Q6ZW71             | Q9D8Y1             | Q74J19             | Q8ITJ2 | Q86TZ5             | Q6Q8S5            |
|            | Q6jkx0 hypocrea th | Q6jkw9 hypocrea th | 3 hypocrea | hypocrea | Q6xw07 shigella fl | _          | Q91151 notophthalm | 074897 schizosacch | Q6zw71 homo sapien | Q9d8y1 mus musculu | Q74j19 lactobacill | _      | Q86tz5 homo sapien | Q6q8s5 uncultured |

| SEQUENCE FROM N.A.  MEDITINE=90073664; PubMed=2590204; Ulvsbacck M., Lindstroem C., Weibw Lundwall A.;  "Molecular cloning of a small promicrosemenoprotein, PSP94 or beta- transcripts in non-genital tissues Biochem. Biophys. Res. Commun. 16/ [5] SEQUENCE FROM N.A. TISSUE=Prostate; MEDITINE=94115955; PubMed=7506990; Liu A.Y., Bradner R.C., Vessella I "Decreased expression of prostatic cancer."; | SEQUENCE FROM N.A.  SEQUENCE FROM N.A.  SEQUENCE 5., Mbikay M., Chretien M.;  "Prostatic secretory protein PSP94  sequence in rhesus monkey and huma Biochim. Biophys. Acta 1089:247-24  [3]  SEQUENCE FROM N.A.  MEDLINE=90211299; PubMed=2322265;  Green C.B., Liu W.Y., Kwok S.C.M.;  "Cloning and nucleotide sequence a microseminoprotein gene."; Biochem. Biophys. Res. Commun. 167 | Homo sapiens (Human).  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; NCBI_TaxID=9606; [1]  SEQUENCE FROM N.A.  MEDLINE=87161231; PubMed=3829888; MEDLIN | SULT 1  MB_HUMAN  MSMB POSITION  01-AI  05-JI  Beta- prote beta- Name- |
|--|---|--|--|
| er H., Abrahamsson PA., Lilja H., ttate protein, known as beta- inhibin, and demonstration of s."; i:1310-1315(1989).  DOI=10.1016/0304-3835(93)90049-F; R.L.; secretory protein PSP94 in prostate   | DOI=10.1016/0167-4781(91)90016-F; : gene organization and promoter n."; 9(1991). nalysis of the human beta- :1184-1190(1990).   | minidae; Euteleostomi; s., Chapdelaine P., ., Seidah N.G., for a 94-amino-acid prostate.";   | ecreted seminal plasma<br>PSP-94) (Seminal plasma<br>(IGBF) (PN44)     |

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RA Klausner R.D., Colling F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA HOpkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Wedin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Bosak S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gibbs R.A.,
RA Richards S., Worley A.C., Soederan E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Hiding M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Butterfield Y.S.N., Krzywinski M.I., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
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Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
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Akiyama K., Hara M.;
                                                                                                                                   MEDLINE=9200070., MEDDIAM MEDLINE=920070., Kamada M., Koide S.S.;
"Structural identity of immunoglobulin binding factor "Structural identity of immunoglobulin binding factor secretory protein of human seminal plasma.";
secretory protein of human seminal plasma.";
   MEDLINE=95401076;
Ohkubo I., Tada T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 2-72 FROM N.A. MEDLINE=99421644; PubMed=10491085;
                                                                                                  SEQUENCE OF 21-41,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seidah N.G.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=85199974; PubMed=3995056; DOI=10.1016/0167-4838(85)90200-6;
Akiyama K., Yoshioka Y., Schmid K., Offner G.D., Troxler R.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 21-113.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Maekinen M., Valtonen-Andre C., Lundwal
"New world, but not old world, monkeys
beta-microseminoprotein.";
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Strausberg R.L., Feingold E.A., Grouse L.H., Derge
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M.
Altuschul S.F., Zeeberg B., Buetow K.H., Schaefer C.
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Clarke M.W.;
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MEDLINE=96032566; PubMed=7566962;
Voen J.W. Chin J.L., Guo Y., Chambers A.F.,
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                    PubMed=7671139; DOI=10.1016/1357-2725(95)00021-G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         equence of human beta-microseminoprotein.";
Acta 829:288-294(1985).
                                                                                                  AND TISSUE SPECIFICITY
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   Ueyama
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOI=10.1016/0014-5793(84)80766-8; ont J.. Sheth A.R., Chretien M.;
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21 22 57 60 62 84 37

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Beta-microseminoprotein.

By similarity.

By similarity.

By similarity.

Or C-60 with C-70 (By similarity).

Or C-62 with C-69 (By similarity).

By similarity.

KCMDLKGNKHPINSEWQTDNCETCTCYETEISCCTLVSTPV

-> MFLHLWVMTKTTAKESSRRRTASISWWRRRTQKRPVLSVNG (in isoform PSP57).

CHAIN SIGNAL Alternative

splicing; Direct

protein sequencing; Polymorphism;

Signal

DISULFID

VARSPLIC

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GO; GO:0005615; C:extracellular
GO; GO:0005634; C:nucleus; TAS.
InterPro; IPR008735; PSP94.
Pfam; PF05825; PSP94; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Newly identified proteins in human nasal smokers and smokers using two-dimensional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide mass fingerprinting.";
Proteomics 2:112-120(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOI=10.1002/1615-9861(200201)2:1<112::AID-PROT112>3.3.CO;2-E;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 21-32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       characterization,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human seminal plasma
                                                                                                                                                                                                                                                                                             M34375; AAA59871.1; M154375; AAA5635.1; M15885; AAA36635.1; AX57928; CAA41002.1; AX57929; CAA41002.1; AX57930; CAA41002.1; AX57930; CAA41002.1; AX57931; CAA41002.1; AX57931; AAB29732.1; AAA83556.1; UZ22178; AAA83556.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IsoId=P08118-2; Sequence=VSP 003275, VSP 003276;
ITSSUE SPECIFICITY: Strongly expressed in prostate, liver, kid breast and penis. Also expressed in pancreas, esophagus, stoma deodenum, colon, trachea, lung, salivary glands and fallopian tube. PSP94 is expressed in lung and breast, whereas PSP57 is found in kidney and bladder.
MISCELLANEOUS: Specific receptors for this protein are found o spermatozoa and in the prostate.
SIMILARITY: Belongs to the beta-microseminoprotein family.
CAUTION: Was originally thought to inhibit the secretion of FS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pituitary cells.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=PSP94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through a collaboration en the Swiss Institute of Bioinformatics and the EMBL outstation -
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                                                                                                                                                                                                                                                                                     U78976; AAB37355.1;
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M34373; AAA59871.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   email to
                                                                                                                                                                                                                                                                                                                                                                                  ; AAA59871.1;
; AAA59871.1;
; AAA59871.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            license agreement
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immunohistochemical localization.";
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                                                                                                                                                                                               Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                         EMBL; X57932; CAA41003.1; -.
EMBL; X57933; CAA41003.1; JOINED.
EMBL; X57934; CAA41003.1; JOINED.
EMBL; X57935; CAA41003.1; JOINED.
EMBL; M92161; AAA36903.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       use by non-profit institutions as long a
modified and this statement is not removed.
entities requires a license agreement (See I
or send an email to license@isb-sib.ch).
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"ProBtatic secretory protein PSP94: gene organization and promoter sequence in rhesus monkey and human.";
Biochim. Biophys. Acta 1089:247-249(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-1992 (Rel. 22, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Beta-microseminoprotein precursor (Prostate secreted seminal plasma potein) (Prostate secretory protein PSP94) (PSP-94).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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01-MAY-1992 (Rel. 22,
05-JUL-2004 (Rel. 44,
                                               SEQUENCE
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P25142;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=91274357; PubMed=2054385; DOI=10.1016/0167-4781(91)90016-F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cercopithecinae, Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Macaca mulatta (Rhesus macaque).
Eukaryota; Metazoa; Chordata; Cr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=MSMB;
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                                                                                                                                                                                                                                                                                                         S16237; A54663.
                                                                                                                                                                                                                                        PF05825;
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Pred. No. 2.9e-40;
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Chin J.L.;
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28-FEB-2003
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28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation updat
Beta-microseminoprotein J1 precursor (msp-J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the Buropean Bioinformatics Institute. There use by non-profit institutions as long as modified and this statement is not removed. Usentities requires a license agreement (See htt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Molecular cloning and gene expresecretory protein of 94 amino acon DNA Cell Biol. 16:627-638(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=97316893; PubMed=9174167; Xuan J.W., Wu D., Guo Y., Garde S.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U49786; AAB62726.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=MSMB; Synonyms=PSP94;
Papio anubis (Olive baboon)
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Beta-microseminoprotein.

By similarity.

By similarity.

Or C-60 with C-70 (By sim

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                                                                                                                               MEDLINE=99421644; PubMed=10491085; Maekinen M., Valtonen-Andre C., Lundwai "New world, but not old world, monkeys beta-microseminoprotein."; Eur. J. Biochem. 264:407-414(1999).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Saguin
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05-JUL-2004 (Rel.
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                                  between
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                         NCBI_TaxID=9490;
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097936;
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                                                                                                                                                                                                                                                                                                                                                                                 Name=MSPA;
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-!- SUBCELLULAR LOCATION: Secreted. Sperm surface (By similari-
-!- SIMILARITY: Belongs to the beta-microseminoprotein family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=99421644; PubMed=10491085; Maekinen M., Valtonen-Andre C., Lundwal "New world, but not old world, monkeys beta-microseminoprotein."; Eur. J. Biochem. 264:407-414(1999).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Saguinus.
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                                                                        J. Biochem. 264:407-414(1999).
SUBCELLULAR LOCATION: Secreted. Sperm surface (By similarity).
SIMILARITY: Belongs to the beta-microseminoprotein family.
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                                                                                                 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                            Saguinus oedipus (Cotton-top tamarin)
Eukaryota; Metazoa; Chordata; Craniat
Mammalia; Eutheria; Primates; Platyrr
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EMBL; AJ010159; CAB38124.1; JOINED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF05825;
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                                                       L; AJ010154; CAB38105.1; -.. GO:0005576; C:extracellular; erPro; IPR008735; PSP94.
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SUBCELLULAR LOCATION: Secreted. Sperm surface (By similarity).
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SEQUENCE FROM N.A.

STRAIN=TY2 / ATCC 700931;

STRAINE=22531367; PubMed=12644504;

MEDLINE=22531367; PubMed=12644504;

MOI=10.1128/JB.185.7.2330-2337.2003;

DOI=0.1128/JB.185.7.2330-2337.2003;

Deng W., Liou S.-R., Plunkett G. III, Mayhew G.F., Rose D.J.,

Deng W., Liou S.-R., Plunkett G. III, Mayhew G.F., Rose D.J.,

Burland V., Kodoyianni V., Schwartz D.C., Blattner F.R.;

Burland V., Kodoyianni V., Schwartz D.C., Blattner Typhi st
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AE016836; AA068400.1; -. EMBL; AL627273; CAD02532.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Complete genome sequence of a multiple drug resistant Salmonella enterica serovar Typhi CT18.";
Nature 413.848-852(2001).
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9929 MW; B2FCE9D9F079EE98
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Or C-62 with C-69 (
By similarity: 05E7A410125C94B2
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01-NOV-1996
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                                                                                                                                                                      MEDLINE-87122182; PubMed-3811242;
Ishino M., Sawada Y., Yaegashi T., Demura M., Fujinaga K.;
"Nucleotide sequence of the adenovirus type 40 inverted terminal
                                                                                                                                                                                                                                            MEDLINE=88265890; PubMed=2968714; Ishino M., Ohashi Y., Emoto T., Sawada Y., "Characterization of adenovirus type 40 El Virology 165:95-102(1988).
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE=88084437; PubMed=2961652; DOI=10.1016/0378-1119(87)90034-5;
                                                                                                                                                                                                                                                                                                                                                                                                                                              viruses; dsDNA viruses, NCBI_TaxID=130309;
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EMBL; AE008796; AAL21056.1;
Complete proteome.
SEQUENCE 93 AA; 9929 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=21534948; PubMed=11677609; DOI=10.108/35101614; MCClelland M., Sanderson K.E., Spieth J., Clifton S.W., Latre McClelland M., Sanderson K.E., Spieth J., Clifton S.W., Latre Courtney L., Porwollik S., Ali J., Dante M., Du F., Hou S., Leonard S., Nguyen C., Scott K., Holmes A., Grewal N., Mulvan Ryan E., Sun H., Florea L., Miller W., Stoneking T., Nhan M.,
SEQUENCE
                                        "The genes encoding the adenovirus types 40 and
                                                                                  MEDLINE=88160034; PubMed=3279700;
Vos H.L., van der Lee F.M., Reems
                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human adenovirus
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Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
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                                                                                                                                                                                                                                                                                                                                               "Structure and organization fastidious adenovirus types
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                           Virology
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                              163:1-10(1988)
                                                                                                                                             close relation to that of adenovirus type 156:414-416(1987).
 FROM N.A.
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Last annotation updat
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Pred. No.
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                                                                                  A.M., van
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41.";
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Davison A.J., Benko II., I
Submitted (JTL-1993) to the
EMBL; L19443; AAC13971.1;
EMBL; L19443; AAC13971.1;
                                                                                                                                                                                                                                                                                                        P11805;
01-CTT-1989 (Rel. 12, Cre
01-FEB-1996 (Rel. 33, Las
01-FEB-1996 (Rel. 33, Las
31 kDa phosphoprotein.
Human adenovirus type 40.
Viruses; dsDNA viruses, r
            This SWISS-PROT entry is copyright. It is produced through a cobetween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
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leftmost 1.85 )
Sapporo Igaku 2
[7]
                                                                                                             "The genes encoding the adenovirus types 40 and Virology 163:1-10(1988).
                                                                                                                                                         SEQUENCE OF 176-211 FROM N.A. MEDLINE=88160034; PubMed=3279700; Vos H.L., der Lee F.M., Reemst A.
                                                                                                                                                                                                         MEDLINE-94087748; PubMed-8263936;
Davison A.J., Telford E.A., Watson M.S., M
"The DNA sequence of adenovirus type 40.";
J. Mol. Biol. 234:1308-1316(1993).
                                                                                                                                                   Sussenbach J.S.;
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                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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J. Gen. Virol. 70:3203-3214/1000
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MEDLINE=94087748; PubMed=8263936;
MEDISTNE=94087748; PubMed=8263936;
Davison A.J., Telford E.A., Watson M.
"The DNA sequence of adenovirus type
J. Mol. Biol. 234:1308-1316(1993).
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                                                                                                                                                                                                                                                                                                        stage; Adenoviridae; Mastadenovirus
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                         . Usage by and for commercial http://www.isb-sib.ch/announce/
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Best Local
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Q6LWU9;
05-JUL-2004
                                                                                                                  Moore B., Porat I. Saenphimmachak C., Leigh J.A.;
                                                                                                                                           Hendrickson E.L., Kaul R., Zhou Y., Bovee D., Chapman P., Conway de Macario E., Dodsworth J., Gillett W., Graham D.I. Glock W., Cand M.L., Levy R., Lie T.J., Major Moore B., Porat I., Overbeek R., Palmeiri A., Rouse G., Saenphimmachak C., Soll D., Whitman W.B., Larimer F.W., Olsaenphimmachak C., Soll D., Whitman W.B., Larimer P.W., Olsaenphimmachak C., Soll D., Whitman C., Wh
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EMBL; M19316; J
Late protein; I
SEQUENCE 211
                                                                                                                                                                                                                                                                                                                       STRAIN=S2 / LL;
Hendrickson E.L.,
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OrderedLocusNames=MMP1605;
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Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata)
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygo
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                                                                             "Complete genome sequence of the
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Sarcophagidae; Sarcophaga.
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(FEB-2004) to t
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                                e of the mesophilic maripaludis.";
    EMBL/GenBank/DDBJ
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EMBL/GenBank/DDBJ
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 7;
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a; Brachycera; Muscomorpha; Oe
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DBJ databases.
                                                                         hydrogenotrophic
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                                                                                                                                                           Olson M.V.
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PACE OCCUPANT OCCUPAN
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RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Brandon R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Brandon R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Brandon R.C., Baster E.G., Helt G., Nelson C.R., Gabor G.L.,
RA Abril J.F., Aphayani A., An H.J., Andrews-Pfannkoch C., Baldwin D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brockstein P., Brottier P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenportt L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenportt L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenportt L.B., Davies P.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Durbin K.J., Evangelista C.C., Ferraz C., Ferriara S., Fleischmann W.,
RA Godek A., Gong F., Gorrell J.H., Gu Z., Gulan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.H., Ibegwam C.,
RA Liu X., Mattei B., McIntosh T.C., McLeod M.E., McDherson D.,
RA Liu X., Mattei B., McIntosh T.C., McLeod M.E., McPherson D.,
RA McIson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
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R GO; GO:0004743; F:pyruvate kinase activity; IEA.

R GO; GO:0006096; P:glycolysis; IEA.

R InterPro; IPR011037; PK B barrel like.

InterPro; IPR011697; Pyruvate_kinase.

Pfam; PF00224; PK; 1.

Pfam; PF02887; PK; 1.

R Pfam; PF02887; PK; 1.

R PRINTS; PR01050; PYRUVTKNASE.

R PRINTS; PR01050; PYRUVATE_kinase; 2.

TIGREAMS; TIGR01064; pyruv kin; 1.

R TIGREAMS; TIGR01064; pyruv kin; 1.

R PROSITE; PS00110; PYRUVATE_KINASE; UNKNOWN 1.

RR PROSITE; PS00110; PYRUVATE_KINASE; UNKNOWN 1.

RR PGOSTEE; PS00110; PYRUVATE_KINASE; Magnesium; Transferase.

OM SEQUENCE 447 AA; 50143 MW; ABBB59767D54EDD6 CRC64;
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Best Local :
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Q9VWP1, Q95RE2;
01-MAY-2000 (TTEMBLTel. 1
01-OCT-2002 (TTEMBLTEL 2
25-OCT-2004 (TTEMBLTEL 2
CG7288-PA (LD38070p).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Haraboda; Insecta;
Neoptera; Endopterygota; Diptera; Brachycera; Muscc
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -:- CATALYTIC ACTIVITY: ATP + pyruvate = ADP +
-:- COFACTOR: Requires magnesium and potassium
-:- PATHWAY: Glycolyfis; final step.
-:- SUBUNIT: Homotetramer (By similarity).
-:- SIMILARITY: Belongs to the pyruvate kinase
EMBL; BY957233; CAF31161.1; -.
HSSP; P11974; 1AQF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PubMed=10731132; DOI=10.1126/science.287.5461.2185;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
Last sequence update)
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                      Gonzalez M., Guarin H., Li P., Liao G., Miranda A., Mungall A. Nunco J., Pacleb J., Paragas V., Park S., Phouanenavong S., Yu C., Lewis S.E., Rubin G.M., Celniker S.; Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases. EMBL; AE003510; AAF48897.2; -.

R EMBL; AE003510; AAF48897.1; -.

R EMBL; AF0061442; AAL28990.1; -.

R EMBL; AF0061442; AAL2899.1; -.

R EMBL; AF00004197; F:cysterine-type endopeptidase activity; IEA. GO; GO:0004197; F:ubiquitin thiolesterase activity; IEA. GO; GO:0004271; P:ubiquitin-dependent protein catabolism; I R GO; GO:0006511; P:ubiquitin-dependent protein catabolism; I R InterPro; IPR001394; Peptidase_C19.

R Pfam; pF00443; UCH; 1.

R PROSITE; PS50235; UCH_2_3; 1.
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Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.
Smith C.D., Tupy J.L., Whitfied E.J., Bayraktaroglu L., Berman B.P
Bettencourt B.R., Celniker S.E., de Grey A.D., Drysdale R.A.,
Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                     Stapleton M., Brokstein P., Hong L., Agbayani Champe M., Chavez C., Dorsett V., Farfan D.,
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MEDLINE=22426070; PubMed=12537573;
Kaminker J.S., Bergman C.M., Kronmiller B., C:
Kaminker J.S., Bergman C.M., Lewis S.E.,
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PS50235; UCH 2_3; 1.
494 AA; 57503 MW;
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n D., Frise E., George R.,
Miranda A., Mungall C.J.,
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                                                                                                                    01-JUN-1998 (TrembLrel. 06, Created)
01-JUN-1998 (TrembLrel. 06, Last sequence update)
01-MAR-2004 (TrembLrel. 26, Last sequence update)
POSSIBLE FATTY-ACID-COA SYNTHETASE FADD17 (FATTY-ACID-COA SYNTHASE)
(FATTY-ACID-COA LIGASE) (EC 6.2.1.-).
Name=fadD17; OrderedLocusNames=Rv3506;
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053551;
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SEQUENCE
Corynebacterineae; Mycobacteriaceae; Mycobacterium.
NCBI TaxID=1773;
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05-JUL-2004
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MEDLINE=22206494; PubMed=12218036;

DOI=10.1128/JB.184.19.5479-5590.2002;

DOI=id.1128/JB.184.19.5479-5590.2002;

Peterson J.D., Alland D., Eisen J.A., Carpenter L., White O.,

Peterson J.D., DeBoy R.T., Dodson R.J., Gwinn M.L., Haft D.H.,

Hickey E.K., Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M.D.,

Salzberg S.L., Delcher A., Utterback T.R., Weidman J.F., Khouri H.M.

Gill J., Mikula A., Bishai W., Jacobs W.R. Jr., Venter J.C.,
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PRINTS; PR00154; AMPBINDING.
PROSITE; PS00455; AMP_BINDING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GO; GO:0016874; F:ligase activity; GO; GO:0008152; P:metabolism; IEA. InterPro; IPR000873; AMP-bind.
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    Bacteriol.

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SIMILARITY: Belongs to the ATP-dependent AMP-binding enzyme
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cive 0; Mismatches
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Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C.M.,
Harris D.E., Gordon S.V., Eighmeier K., Gas S., Barry C.E. III,
Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T.,
Connor R., Davies R.M., Devlin K., Feltwell T., Gentles S., Hamlin N.,
Holroyd S., Hornsby T., Jagels K., Krogh A., McLean J., Moule S.,
Murphy L.D., Oliver S., Osborne J., Quall M.A., Rajandream M.A.,
Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Squares R.,
Sulston J.E., Taylor K., Whitehead S., Barrell B.G.;
"Deciphering the biology of Mycobacterium tuberculosis from the
complete genome sequence.";
Nature 393:537-544(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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PIR; D70806; D70806.
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# ALIGNMENTS

RESULT 1 AAO17997 Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; 16-OCT-2000; 2000CA-02321256. 20-AUG-2001; 2001CA-02355334. 15-OCT-2001; 2001WO-CA001463 Synthetic. benign prostate hyperplasia; cytostatic 30-AUG-2002 AA017997; AA017997 standard; peptide; 25-APR-2002. WO200233090-A2 Human PSP94 analogue (first entry) adaptor 30 peptide Ş #1.

(PROC-) PROCYON BIOPHARMA INC

Ś Panchal CJ, Baijal-Gupta Z, Fraser Ļ Kadhim

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WPI; 2002-471401/50.

New human prostate secretory protein of 94 amino acids, use inhibiting growth of e.g. tumor, prostatic adenocarcinoma, gastrointestinal, breast, endometrial, and ovarian cancers. useful for stomach

Disclosure; Page 105; 185pp; English.

The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betaminhibin opportein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of PSH. The present sequence is an adaptor peptide useful in the invention

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RESULT 2
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                                                                                                                                                                                                                                        The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an adaptor peptide useful in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                        Sequence
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RESULT 3

Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoms stomach cancer; breast cancer; endometrial cancer; ovarian cancer;

Human

prostate

secretory protein of 94 amino

acids

PSP94 analogue

AA017917;

30-AUG-2002

(first entry)

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RESULT 4
AAO17917
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                                                                                                                                 AAO17917 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human prostate secretory protein of 94 amino acids, us inhibiting growth of e.g. tumor, prostatic adenocarcinoma, gastrointestinal, breast, endometrial, and ovarian cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer.
                                                                                                                                                                                                                                                                                                Sequence 60 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-471401/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Garde
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20-AUG-2001;
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benign prostate hyperplasia;
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                                                                                                                                                                                                                                                Conservative
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2001CA-02355334.
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lasia; cytostatic.
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Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                    beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betaminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                         16-OCT-2000;
20-AUG-2001;
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20-AUG-2001; 2001CA-02355334.
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16; Conserv
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llarity 100.0%;
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2001CA-02355334.
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3e-11;
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RESULT 6
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Best Local S
Matches 16
                                               New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                              Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                       Claim 2;
                                                                                                      WPI; 2002-471401/50
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                         Homo sapiens
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                                                                                                                                                          PROCYON BIOPHARMA INC
                       Page 77; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard; peptide; 18
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The

present invention relates to analogues

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human prostate

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RESULT 7
AAO17920
.ID AAO1
Query Match
Best Local Similarity
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Best Local :
                                                                                                         cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                            The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP). The analogues are useful for inhibiting
                                                                                                                                                                                                                  growth of
                                                                                                                                                                                                                                                                                                                                                                                                       New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                        Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                               Claim
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-OCT-2001; 2001WO-CA001463.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (PROC-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAO17920 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 18 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                present sequence is an analogue of the invention
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                                                                                                                                                                                                           tumours, prostatic adenocarcinoma, stomach or gastrointestinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EWOTDNCETCTCYETE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Panchal CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                       77; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secretory protein of 94 amino acids PSP94 analogue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    peptide;
  53.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        53.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16
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Score :
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Pred. No.
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16;
DB 5; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fraser J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 5; Le
                                                                                                                                                                                                                                                                                                                                                                                                       adenocarcinoma, stomach, ovarian cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acids, useful
                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 18;
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AAO17922 ID AAO1 XX AC AAO1 XX

AAO17922 standard;

peptide;

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AA017922;

RESULT 9

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RESULT 8
AAO17921
ID AAO1
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                                                                                                         Query Match
Best Local S
Matches 16
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                                                                                                                                                                                                                                                                                     The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial; ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 2; Page 77; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Garde S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-OCT-2000;
20-AUG-2001;
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                                                                                                            l Similarity
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                                                                                                                                                                                                                                                                   sequence is an analogue of the invention
                               EWQTDNCETCTCYETE
                                                                                                                                                                                                                   20
EWQTDNCETCTCYETE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; peptide;
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                                                                                                                                                                                                                   AA;
                                                                                                            Conservative
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2001CA-02355334.
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                                                                                           53.3%; 5
100.0%; Pr
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16
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                                                                                                      Score 16; DB; Pred. No. 3.7
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                                                                                                                                DB 5; Lo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              amino acids, useful for adenocarcinoma, stomach, ovarian cancers.
                                                                                                                                                             Length 20;
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                                                                                                      Gaps
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RESULT 10
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Best Local S
Matches 16
                                                                  Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma, stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HST) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New human prostate secretory protein of 94 amino avinhibiting growth of e.g. tumor, prostatic adenocas gastrointestinal, breast, endometrial, and ovarian
                                                                                                                                               Human prostate
                                                                                                                                                                            30-AUG-2002
                                                                                                                                                                                                                                   AAO17923 standard; peptide; 22
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 21
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                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                present sequence
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                            secretory protein of 94 amino acids PSP94 analogue
                                                    breast cancer; endometri
hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              is an analogue of the invention
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Pred. No.
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RESULT 11
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     WPI; 2002-471401/50
                                                 Garde S,
                                                                                                                                                   16-OCT-2000; 2000CA-02321256; 20-AUG-2001; 2001CA-02355334.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma;
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                                                                                                                                                                                                                                                                                                                                                                                                                            benign
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cancer; human;
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                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
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20-AUG-2001; 2001CA-02355334.
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                                                                                                  PROCYON BIOPHARMA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22 AA;
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                                                 Panchal CJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PSP94; prostatic inhibin
                                                                                                                                                                                                                                                                                                                                                                                                                            hyperplasia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      breast
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100.0%; Pr
                                                 Baijal-Gupta M,
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Pred. No.
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                        The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                            gastrointestinal,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human prostate
                                                                                                                                                                                                                                                                                       inhibiting
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ibiting growth of e.g. tumor, prostat
crointestinal, breast, endometrial, a
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2001CA-02355334.
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                                                                                                                                                                                                          185pp; English.
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                                                                                                                                                                                                                                                 tory protein of 94 a . tumor, prostatic a , endometrial, and c
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                                                                                Sequence
                                                                                                                                                                                                                                                          New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                                                                         The present invention relates to analogues of the human prostate
                                                                                                                                                                                                                                 Claim 2; Page 79; 185pp; English.
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20-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP;
                                                                                      Human prostate secretory protein of 94 amino acids PSP94 analogue #17
                                                                                                                                                                                  30-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 26 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 2; Page 79; 185pp; English.
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                         AA017928
                                                                                                                                                                                                                                                                                                                                                                AAO17928 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-OCT-2001; 2001WO-CA001463
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                                                                                                                          Sequence 27 AA;
                                                                                                                                                                                                                                The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting
                                                                                                                                                                                                                                                                                                                                          New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                                               Claim 2;
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20-AUG-2001; 2001CA-02355334.
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US-09-962-702A-8
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Sequence 1, Appli
Sequence 7807, Ap
Sequence 17, Appl
Sequence 17, Appli
Sequence 20514, A
Sequence 7517, Appli
Sequence 4, Appli
Sequence 6, Appli
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Sequence 87, Appli
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| 11810<br>1192<br>2243<br>2243<br>2243<br>2243<br>2243<br>2314<br>2314<br>231   | 5                   | <del>ن</del>     | ഗ                   | 5                | ഗ               | ر.              | υı               | ۍ               | 5                  | ъ                | տ                | v                | տ                | տ                | 5                    | 5                | თ                   | U                   |
| **************************************   | 16.7                | 16.7             | 16.7                | 16.7             | 16.7            | 16.7            | 16.7             | 16.7            | 16.7               | 16.7             | 16.7             | 16.7             | 16.7             | 16.7             | 16.7                 | 16.7             | 16.7                | 10./                |
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|  | 5873, Ap            | 4, Appli         | 14527, A            | 4, Appli         | 4, Appli        | 4, Appli        | 4, Appli         | 8, Appli        | 5038, Ap           | 16, Appl         | 15, Appl         | 16, Appl         | 15, Appl         | 4, Appli         | 21826, A             | 4, Appli         | 61692, A            | AV 'CCO'            |

ALIGNMENTS

#### US-07-899-535A-1 RESULT 1 US-07-899-535A-1 Sequence 1, Application US/07899535A Patent No. 5428011 TELEX: 24 8614 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS GENERAL INFORMATION: TOPOLOGY: 11: MOLECULE TYPE: HYPOTHETICAL: APPLICANT: Garde, Seema APPLICANT: Panchal, Chandra J. TITLE OF INVENTION: Pharmaceutical Preparations For TITLE OF INVENTION: Inhibiting Tumours Associated With TITLE OF INVENTION: Adenocarcinoma, Stomach Cancer and REFERENCE/DOCKET NUMBER: SETELECOMMUNICATION INFORMATION TELEPHONE: 703-415-0960 TELEPHONE: 703-415-0962 ATTORNEY/AGENT INFORMATION: NAME: Loud, George A. REGISTRATION NUMBER: 25, CORRESPONDENCE ADDRESS: NUMBER OF SEQUENCES: STREET: 2001 Jeff CITY: Arlington STATE: Virginia COUNTRY: U.S.A. STRANDEDNESS: LENGTH: H: 94 amino acids 2001 Jefferson SS: single linear Sheth, Anil R. Garde, Seema . protein Mr. George Loud 53.3%; Score 16; 100.0%; Pred. No. 25,814 Davis Highway, Suite 306 S&B-A835 DB 1; Length 94; Breast Cancer. Prostate

Matches Query Match

Local Similarity

Conservative

100.0%; Pred. ... 100.0%; Pred. ... 100.0%; Pred. ...

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Indels

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EWOTDNCETCTCYETE 16

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US-08-460-309-17
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OTHER INFORMATION: seq VVIFATFVTLCNA/SC
US-09-513-999C-7807
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SOFTWARE: Patent.pm
SEQ ID NO 7807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 7807, Application US/09513999C Patent No. 6783961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins. Patent No. 6783961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Engval
APPLICANT: Leivo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Duclert, A. APPLICANT: Giordano, J.Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/122,487 PRIOR FILING DATE: 1999-02-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/513,999C CURRENT FILING DATE: 2000-02-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 59.US2.REG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Dumas Milne Edwards, J.B.
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NAME/KEY: SIGNAL
LOCATION: -20..-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/460,309
                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Nucleic Acids Encoding-Merosin, Merosin TITLE OF INVENTION: Fragments and Uses Thereof NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENGTH: 114
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APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10730
FILING DATE: 21-SEP-1994
                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                     COUNTRY:
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4370 La Jolla Village Drive, Suite 700
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Leivo, Ilmo
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100.0%; F1
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3. 8.4e-12;
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Best Local S
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                                                                                           APPLICATION NUMBER: US 07/472,319
FILING DATE: 30-JAN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/919,951
FILING DATE: 27-JUL-1992
ATTORNEY_AGENT INFORMATION:
NAME: Campbell, Cathryn A.
                                                                                                                                                                                                                   CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US PCI
FILING DATE: 21-SEP-1994
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/125,077
                                     REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin TITLE OF INVENTION: Fragments and Uses Thereof NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 241 amino acids
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TELEPHONE: (619)
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4370 La Jolla Village Drive, Suite 700
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Leivo, Ilmo
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         535-8949
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100.0%; Pred. No. 7.
tive 0; Mismatches
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                                                            US-09-949-016-7517
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                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/248,796A
CURRENT FILING DATE: 1999-02-12
PRIOR APPLICATION NUMBER: US 60/074,725
PRIOR FILING DATE: 1998-02-13
PRIOR APPLICATION NUMBER: US 60/096,409
PRIOR FILING DATE: 1998-08-13
NUMBER OF SEQ ID NOS: 28208
SEQ ID NO 20514
                                                                                                               SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 7517
LENGTH: 2123
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 7517, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Keith Weinstock et al
APPLICANT: Keith Weinstock et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICAN
TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
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Patent No. 674713
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                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/241,755 PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
                                                                                                                                                                     NUMBER OF SEQ ID NOS:
                                                                          TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 362
TYPE: PRT
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mes 6; Conserv
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   20.0%;
   Score 6;
Pred. No.
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     DB 4;
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GENERAL INFORMATION:
APPLICANT: HE-STUMPP, HOLGER
APPLICANT: HAENDLER, BERNARD
APPLICANT: KRAETZSCHMAR, JOEI
APPLICANT: KRAETZ, BERTHOLT
APPLICANT: KRAET, BERTHOLT
APPLICANT: WINTERHAGER, ELKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; LENGTH: 3070
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-961-403-7
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                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
PRIOR PELICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR PILING DATE: 1999-04-30
NUMBER OF SEQ ID NOS: 32
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Matches
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Best Local Similarity
Matches 6; Conserv
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PATENT NO. 6632790
GENERAL INFORMATION:
APPLICANT: Yurchenco, Peter
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                                                                                                                                                                               SEQ ID NO 8
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                                                                                       Query Match
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APPLICANT: SCOTTI, SIMONE
TITLE OF INVENTION: METHOD FOR IN VITRO DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: SCH-1789
FULCATION NUMBER: US/09/961,403
CURRENT FILLING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
                                                                                                                                                                                             SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Laminin 2 and Methods for Its Use FILE REFERENCE: 99-274-B
                                                                                                                                                  LENGTH: 3
TYPE: PRT
                                                                                                                                  ORGANISM: Homo sapiens
                                                    Local Similarity nes 6; Conserv
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367 NCETCT 372
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                           NCETCT 11
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KREFT, BERTHOLT
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CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR PILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR PILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR APPLICATION NUMBER: 60/131,720
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Best Local S
Matches 6
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PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR PPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR FILING DATE: 1999-06-15
                                                                        Matches
                                                                                                          Query Match
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Patent No. 6632790
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 32
                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 1999-04-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Yurchenco, Peter
TITLE OF INVENTION: Laminin 2 and Methods for Its Use
FILE REPERENCE: 99-274-B
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FILE REFERENCE: 99-274-B
CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
                                                                                                                                                          LENGTH: 3110
TYPE: PRT
ORGANISM: Homo sapiens
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ORGANISM: Homo sapiens
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 389
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                                  NCETCT 11
NCETCT 394
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                                                                    ilarity 100.0%;
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                                                                20.0%; Score 6; DB 4
100.0%; Pred. No. 83;
cive 0; Mismatches
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RESULT 11

RESULT 13 US-09-917-254-86

Sequence 86, Application US/09917254 Patent No. 6703204

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                                                                                                                                                  US-09-561-709B-7
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PRIOR FILING DATE: 1999-09-24
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR FILING DATE: 1999-04-30
NUMBER OF SEQ ID NOS: 32
                                                                                                                                                                                                                           SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 6
LENGTH: 3110
                                                                          Matches
                                                                                                             Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 7, Application US/09561709B Patent No. 6682911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                                                                                                                                 APPLICANT: Brunken, William
TITLE OF INVENTION: LAMININS AND USES THEREOF
FILE REFERENCE: 10287-060001
CURRENT APPLICATION NUMBER: US/09/561,709B
CURRENT FILING DATE: 2000-05-01
PRIOR APPLICATION NUMBER: US 09/168,949
PRIOR FILING DATE: 1998-10-09
                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/061,609
PRIOR FILING DATE: 1997-10-10
NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/562,702A CURRENT FILING DATE: 2000-04-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Burgeson, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Yurchenco, Peter
TITLE OF INVENTION: Laminin 2 and Methods for Its Use
FILE REFERENCE: 99-274-B
                                                                                                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                         ENGTH: 3110
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20.0%; Score 6; 1
Local Similarity 100.0%; Pred. No.
hes 6; Conservative 0; Mismatci
                                                                        Local Similarity es .6; Conservat
389 NCETCT 394
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o. 6632790
                                   6 NCETCT 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Olson, Pamela
Koch, Manuel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Champliaud, Marie-France
                                                                    20.0%; Score 6; DB . 100.0%; Pred. No. 83 tive 0; Mismatches
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                                                                                        DB 4;
o. 83;
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                                                                                                           Length 3110;
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RESULT 14
US-09-949-016-5937
IS-09-949-016-5937, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
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; TYPE: PRT
; ORGANISM: Homo Sapiens
US-09-917-254-86
                            'atent No. 300....
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Leivo, Ilmo
APPLICANT: Leivo, Ilmo
TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin
TITLE OF INVENTION: Fragments and Uses Thereof
                                                                                                                                                                                                 Sequence 4, Application US/08460309 Patent No. 5837496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 5937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 20.0%; Score 6; DB Best Local Similarity 100.0%; Pred. No. 83 Matches 6; Conservative 0; Mismatches
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Mutter, George
APPLICANT: Baak, Jan
APPLICANT: Baak, Jan
APPLICANT: Baak, Jan
TITLE OF INVENTION: Prognostic Classification of Breast Cancer
FILE REFERENCE: B0801/7224 (JRV)
CURRENT APPLICATION NUMBER: US/09/917,254
CURRENT FILING DATE: 2001-07-27
PRIOR APPLICATION NUMBER: US 60/222,093
REIOR APPLICATION NUMBER: US 60/222,093
NUMBER OF SEQ ID NOS: 102
NUMBER OF SEQ ID NOS: 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: 60/231,498 PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH: 3110
                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell
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: Campbell and Flores
4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                20.0%; Score 6; DB 4;
100.0%; Pred. No. 83;
tive 0; Mismatches
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o. 83;
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; TOPOLOGY: US-08-460-309-4
Search completed: May 4, Job time: 16.3818 secs
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Best Local Similarity
Matches 6; Conserv
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10730
PRICH DATE: 21-SEP-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/472,319
FILING DATE: 30-JAN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/919,951
APPLICATION NUMBER: US 07/919,951
APPLICATION NUMBER: US 07/919,951
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APPLICATION NUMBER: US 07/919,951
APPLICATION TORNALION:
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APPLICATION TORNALION:
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INFORMATION FOR SEQ ID NO: 4:
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MEDIUM TYPE: Floppy disk
COMPUTER: ISM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 3111 amino aci
                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                           TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE:
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                                                                                  389 NCETCT 394
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California
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Result
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Maximum DB
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seq length: 2000000000
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/cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
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US-09-977-406A-91
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|----------------|---------------|-------------|---------------|-------------------|--------------|-----------|------------|----------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|----------------|--------|--------------|---------------|--------------|--------|---------------|--------------|----------------|-------------------|-------------------|-------------------|-------------|
| 16             | 16            | 16          | 16            | 16                | 16           | 16        | 16         | 16             | 16             | 16           | 16             | 16             | 16             | 16             | 16             | 16             | 16             | 16           | 16             | 16     | 16           | 16            | 16           | 16     | 16            | 16           | 16             | 16                | 16                | 16                | 16          |
| 53.3           |               |             |               |                   | ٠            | •         | •          | ٠              | ٠              | ٠            | •              |                |                |                |                |                |                | ٠            | ٠              |        | •            | •             | ٠            |        |               | •            | ٠              | ٠                 | •                 | •                 | •           |
| 57             | 56            | 55          | 5<br><b>4</b> | 53                | 52           | 51        | 50         | 49             | 48             | 47           | 46             | 45             | 44             | 43             | 42             | 41             | 40             | 39           | 38             | 37     | 36           | u<br>S        | 34           | ω<br>u | 32            | 31           | 30             | 29                | 28                | 27                | 26          |
| 10             | 10            | 10          | 10            | 10                | 10           | 10        | 10         | 10             | 10             | 10           | 10             | 10             | 10             | 10             | 10             | 10             | 10             | 10           | 10             | 10     | 10           | 10            | 10           | 10     | 10            | 10           | 10             | 10                | 10                | 10                | 10          |
| -09-977-406A-5 | -09-977-406A- | 9-977-406A- | -09-977-406A- | US-09-977-406A-47 | 9-977-406A-4 | 77-406A-4 | -09-977-40 | -09-977-406A-4 | -09-977-406A-4 | 9-977-406A-4 | -09-977-406A-4 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | 9-977-406A-3 | -09-977-406A-3 | 77-    | 9-977-406A-3 | -09-977-406A- | 9-977-406A-2 | A-2    | -09-977-406A- | 9-977-406A-2 | -09-977-406A-2 | US-09-977-406A-23 | US-09-977-406A-22 | US-09-977-406A-21 | 9-977-406A- |
| equenc         | Φ             | Ø           | Ø             | equence           | nce          | equence   | equence    | equence        | æ              | æ            | equence        | nce            | ø              | ø              | equence        | O              | Φ              | Φ            | Φ              | Ø      | equence      | Φ             | Ø            | Ø      | equence       | Ø            | æ              | ø                 | Œ                 | O                 | equence     |
| , Appl         | , Appl        | , Appl      | , Appl        | , Appl            | , Appl       | , Appl    | , Appl     | , Appl         | , Appl         | , Appl       | , Appl.        | , Appl         | , Appl       | , Appl         | , Appl | , Appl       | , Appl        | , Appl       | , Appl | , Appl        | , Appl       | , Appl         | , Appl            | , Appl            | Appl              | , Appl      |

## ALIGNMENTS

RESULT 2 US-09-977-406A-91 RESULT 1 US-09-977-406A-90 밁 á ; OTHER INFORMATION: Polypeptide derived from PCK3145 sequence (polypeptide analog) US-09-977-406A-90 PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: PatentIn version 3.1
SEQ ID NO 90
LENGTH: 30 Sequence 90, Application US/09977406A publication No. US20030170220A1 GENERAL INFORMATION: Sequence 91, Application US/09977406A Query Match
Best Local Similarity
Matches 30; Conserv APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03 PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR FILING DATE: 2000-10-16 CURRENT FILING DATE: CURRENT APPLICATION NUMBER: US/09/977,406A TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE: 1 EWQTDNCETCTCYETEWQTDNCETCTCYET EWQTDNCETCTCYETEWQTDNCETCTCYET 100.0%; Score 30; DB 10; ilarity 100.0%; Pred. No. 1.3e-26; Conservative 0; Mismatches 0; 2001-10-30 30 Length 30; Indels 0 Gaps 0

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US-09-977-406A-10
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LENGTH: 60
TYPE: PRT
                                                                                          Sequence 10, Application US/09977406A Publication No. US20030170220A1 GENERAL INFORMATION:
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APPLICANT: PROCYON BIOPHARMA INC
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LENGTH: 45
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CURRENT FILING DATE:
        APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
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CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR APPLICATION NUMBER: CA 2,355,334
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Pred. No. 1.9e-26;
Mismatches 0;
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SEQ ID NO 11
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PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
                                PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
                                                                  CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR FILING DATE: 2001-08-20
                                                                                                    TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS FILE REFERENCE: 06508-030-US-03
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                                                                                                                                        APPLICANT: PROCYON BIOPHARMA INC
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ORGANISM: Artificial Sequence
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Pred. No.
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US-09-977-406A-14
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                                                                                                                                                                                                                     Sequence 14, Application US/09977406A
Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING
FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
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SEQ ID NO 13
LENGTH: 19
                                                                                          SOFTWARE: PatentIn version 3.1 SEQ ID NO 14
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PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
                                                                                                                              NUMBER OF SEQ ID NOS:
                                                                                                                                               PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR TILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
                            TYPE: PRT
ORGANISM: Artificial Sequence
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OTHER INFORMATION: Polypeptide
                     FEATURE:
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derived from rHuPSP94 sequence (polypeptide analog)
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                                                                Query Match
Best Local S
Matches 16
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SEQ ID NO 15
LENGTH: 21
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LENGTH: 22
                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 16, Application US/09977406A Publication No. US20030170220A1
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                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS FILE REFERENCE: 06508-030-US-03 CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15 PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR APPLICATION NUMBER: CA 2,325,334
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PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
                                                                                                                                                                                                                                                      SOFTWARE: PatentIn
                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 92
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CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
                                                                                                                                                                  TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
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                                                                                                                                                  OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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RESULT 13
US-09-977-406A-19
US-09-977-406A-19
; Sequence 19, Application US/09977406A
; Publication No. US20030170220A1
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US-09-977-406A-18
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SPORTS
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PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: 06508-030-US-03
                                                                                                                                                                                                                                                                              FEATURE:
OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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US-09-977-406A-21

GENERAL INFORMATION:

APPLICANT: PROCYON BIOPHARMA INC

AND METHODS

FOR INHIBITING TUMORS

CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15 TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS FILE REFERENCE: 06508-030-US-03

R APPLICATION NUMBER: CA 2,:

Sequence 21, Application US/09977406A Publication No. US20030170220A1

RESULT 15

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; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog) US-09-977-406A-20
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SEQ ID NO 20
LENGTH: 26
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Publication No.
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CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR APPLICATION OF SEQ 10 NOS: 92
NUMBER OF SEQ 1D NOS: 92
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CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
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                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
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TYPE: PRT
ORGANISM: Artificial Sequence
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lo. US20030170220A1
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                                                                                          Score 16; pred. No.
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PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: Patentin version 3.1
SEQ ID NO 21
PRIOR FILING DATE: 27
TYPE: PRT
ORGANISM: Artificial Sequence
PREATURE:
ORGANISM: Artificial Sequence
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 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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 \overline{\phantom{a}}
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1 EWQTDNCETCTCYETI
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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F96738
S76790
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C83652
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| 45                 | 44                 | 43                 | 42                 | 41                 | 40                 | 39                | 38                 | 37                 | 36                 | 35                 | 34                 | 33                 | 32                | 31                | 30                 |
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| 16.7               | 16.7               | 16.7               | 16.7               | 16.7               | 16.7               | 16.7              | 16.7               | 16.7               | 16.7               | 16.7               | 16.7               | 16.7               | 16.7              | 16.7              | 16.7               |
| 390                | 385                | 374                | 374                | 366                | 363                | 361               | 360                | 360                | 359                | 358                | 358                | 349                | 347               | 347               | 340                |
| 2                  | N                  | N                  | N                  | N                  | 1                  | N                 | N                  | 1                  | 1                  | 1                  | _                  | 1                  | N                 | N                 | Ľ                  |
| S46540             | G83817             | C97058             | S41758             | 866351             | C55973             | I50505            | T06592             | A55198             | I51734             | 151735             | A55973             | I50369             | A38453            | AC0825            | B55973             |
| methionine adenosy | coproporphyrinogen | molecular chaperon | heat shock protein | methionine adenosy | transcription fact | gene wnt8 protein | methionine adenosy | transcription fact | anaerobic sulfite | anaerobic sulfite | transcription fact |

#### ALIGNMENTS

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|---|---|---|--|
| A,Title: Beta microseminoprotein is not a prostate-specific protein.  A;Reference number: A60673; MUID:90379237; PMID:2205099  A;Accession: A60673  A;Molecule type: protein  A;Residues: 21, 'X', 23-34 <wei> A;Experimental source: gastric juice  R;Nolet, S.; Mbikay, M.; Chretien, M.  Biochim. Biophys. Acta 1089, 247-249, 1991  Biochim. Biophys. Acta 1089, 247-249; 1991  A;Fitle: Prostatic secretory protein PSP(94): gene organization and promoter sequence in A;Reference number: S16237; MUID:91274357; PMID:2054385  A;Accession: S16238  A;Molecule type: DNA</wei> |   | A; Molecule type: DNA A, Residues: 1-114 <gre> A, Residues: 1-114 <gre> A; Cross-references: UNIPROT: P08118; GB: M34376; NID: g514370; PIDN: AAA59871.1; PID: g514372 A; Cross-references: UNIPROT: P08118; GB: M34376; NID: g514370; PIDN: AAA59871.1; PID: g514372 R; Mbikay, M.; Nolet, S.; Fournier, S.; Benjannet, S.; Chapdelaine, P.; Paradis, G.; Dube DNA 6, 23-29, 1987 A; Title: Molecular cloning and sequence of the cDNA for a 94-amino-acid seminal plasma p A; Reference number: A26451; MUID: 87161231; PMID: 3829888 A; Accession: A26451 A; Molecule type: mRNA A; Residues: 1-114 <mbi> A; Cross-references: GB: M15885; NID: g338414; PIDN: AAA36635.1; PID: g338415 A; Cross-references: GB: M15885; NID: g338414; PIDN: AAA36635.1; PID: g338415 A; Akiyama, K.; Yoshioka, Y.; Schmid, K.; Offner, G.D.; Troxler, R.F.; Tsuda, R.; Hara, M Biochim. Biophys. Acta 829, 288-294, 1985 A; Title: The amino acid sequence of human beta-microseminoprotein. A; Reference number: A29777; MUID: 8519974; PMID: 395056</mbi></gre></gre> | RESULT 1  A34567 beta-microseminoprotein precursor - human beta-microseminoprotein precursor - human N;Alternate names: beta-linhibin; prostatic secretory protein; PSP-94; seminal plasma pro C;Species: Homo sapiens (man) C;Date: 13-Jul-1990 #sequence revision 13-Jul-1990 #text_change 09-Jul-2004 C;Accession: A34567; A269717; A30984; A60673; S16238; I52682 R;Green, C.B.; Liu, W.Y.; Kwok, S.C.M. R;Green, C.B.; Liu, W.Y.; Kwok, S.C.M. Biochem. Biophys. Res. Commun. 167, 1184-1190, 1990 A;Title: Cloning and nucleotide sequence analysis of the human beta-microseminoprotein g A;Reference number: A34567; MUID:90211299; PMID:2322265 A;Accession: A34567; MUID:90211299; PMID:2322265 A;Status: not compared with conceptual translation |

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R;Saraiva, L.M.; da Costa, P.N.; LeGall, J. Biochem. Biophys. Res. Commun. 262, 629-634,-1999
A;Title: Sequencing the gene encoding Desulforibrio desulfuricans A;Reference number: JC7094; MUID:99400423; PMID:10471375
A;Accession: JC7094
A;Authors: Hunter, J.L.; Jenkins, J.; John C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X. Rizzo, M.; Rooney, T.; Rowley, D.; Sakano,
                                                                    C;Accession: B96744
R;Theologis, A.; Bcker, J.R.; Palm,
Chin, C.W.; Chung, M.K.; Conn, L.;
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
                                                                                                                                                                                        unknown protein [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001
                                                                                                                                                                                                                                                                                                                                                                밁
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A; Residues: 1-326 <SAR>
A; Cross-references: UNIPROT: Q9RN68; GB: AF186393;
A; Experimental source: ATCC 27774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: JC7094
R;Saraiva, L.M.; da
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A;Map position: 10q11.2-10q11.2
A;Introns: 1/3; 37/1; 72/2
C;Superfamily: seminal plasma protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: mRNA
A;Rosidues: 1-114 <RES>
A;Cross-references: GB:567815; NID:9460568; PIDN:AAB29732.1; PID:9460569
C;Comment: This protein is a component of seminal plasma as well as secretory fluids fro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:X57928; NID:g35760; A;Note: the authors translated the codon ACT R;Liu, AY; Bradhorr, R.C.; Vessella, R.L. Cancer Lett. 74, 91-99, 1993
                                                                                                                                                                                                                                                                                            RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nine-heme cytochrome c - Desulfovibrio desulfuricans C; Species: Desulfovibrio desulfuricans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Title: Decreased expression of prostatic secretory protein A; Reference number: I52682; MUID:94115955; PMID:7506990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Keywords:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;1-20/Domain: signal sequence #status predicted;21-114/Product: seminal plasma protein #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;Gene: GDB:MSMB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
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100.0%; Pr
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100.0%; Pred. No.
Live 0; Mismatch
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 6;
                                                                                                                    C.J.; Federspiel, N.A.; Kaul, S.; W. Conway, A.B.; Conway, A.R.; Creasy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                        Johnson-Hopson, C.; Khan, S.; S.X.; Liu, Z.A.; Luros, J.S.;
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                                                                                                                                                                                        #text_change 09-Jul-2004
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                             Khaykin, E.; Kim, C
Maiti, R.; Marziali
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; Dewar, K.;
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  A;Cross-references: UNIPROT:P09489; GB:M13469; NID:g152857; PIDN:AAA26572.1; PID:g152858 C;Superfamily: autotransporter subtilisin-like protease precursor; subtilisin homology C;Keywords: hydrolase; serine proteinase F;1-27/Domain: signal sequence #status predicted <SIG>F;28-408/Product: serine proteinase #status predicted <MAT>
                                                                                                                                                                                                                                                                                C;Species: Serratia marcescens
C;Date: 19-May-1989 #sequence_revision 19-May-1989
C;Accession: A29840
                                                                                                                                                                                                                                                                                                                                                                                 RESULT
A29840
                                                                                                                                                                                      R;Yanagida, N.; Uozumi, T.; Beppu, T.

J. Bacteriol. 166, 937-944, 1986
A;Title: Specific excretion of Serratia marcescens protease
A;Reference number: A29840; MUID:86223815; PMID:3011754
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A; Residues: 1-1045 < YAN>
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                                                                                                                                                                                                                                                                                                                                                        serine proteinase (EC 3.4.21.-) precursor - Serratia marcescens
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#text\_change

09-Jul-2004 (strain IFO-3046)

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R;Wohldmann, P.; Beck, C.
R;Wohldmann, P.; Beck, C.
submitted to the EMBL Data Library, September 1997
submitted to the EMBL Data Library, September 1997
submitted to the EMBL Data Library, September 1997
                                                                                                                                                                                 A;Introns: 46/1; 96/1; 124/3; 165/1; 223/3; 282/3; 340/3; 381/1; 485/3; 516/2; C;Superfamily: yeast 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase; osphodiesterase domain Y homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 28-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, Ker, M.; Wi, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W. A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis. A;Reference number: A86141; MUID:21016719; PMID:11130712
                                                                                                                                                              F;338-487/Domain: 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase domain
                                                                                                                                                                                                                                                A; Map position: 3
                                                                                                                                                                                                                                                                   A; Gene: CESP: K10F12.3
                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:AF025462; PIDN:AAB71005.1; GSPDB:GN00021; CESP:K10F12.3
A;Experimental source: strain Bristol N2; clone K10F12
                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-895 < WOH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Species: Caenorhabditis elegans
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                                                                                                                                                                                                                                                                                         C; Genetics
                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary; translated from GB/EMBL/DDB:
                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: T32374
                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: UNIPROT:Q9C7H2; GB:AE005173; NID:g11054407; PIDN:AAG27794.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
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RESULT 8
S53116
                                             NyAlternate names: S-adenosylmethionine synthetase C;Species: Cicer arietinum (chickpea, garbanzo) C;Date: 08-Jul-1995 #sequence_revision 21-Jul-1995 C;Accession: S53116
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A;Accession: S27242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Bulet, P.; Cociancich, S.; Reuland, M.; Sauber, F.; Bischoff, R.; Hegy, G.; van Eur. J. Biochem. 209, 977-984, 1992
A;Tille: A novel insect defensin meddates the inducible antibacterial activity in A;Reference number: S27242; MUID:93049356; PMID:1425705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             defensin - blue darner
C;Species: Aeschna cyanea (blue darner)
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
C;Accession: S27242
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N;Alternate names: antibacterial 4K peptide
C;Species: Leiurus quinquestriatus hebraeus
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-19
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F;409-1045/Domain: carboxyl-terminal prope;
F;76,112,341/Active site: Asp, His, Ser #st
                                                                                                                                                  methionine adenosyltransferase (EC 2.5.1.6) - chickpea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: UNIPROT:P80154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: protein
A;Residues: 1-38 <BUL>
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A. Title: Purification and characterization of a scorpion defensin, a 4kDa antibacteria.
A;Reference number: JN0613; MUID:93326112; PMID:8333834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 6
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Note: this protein is similar to scorpion toxins and insect
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the EMBL Data Library,
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tive 0; Mismatc
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A;Residues: 1-114 <NO2>
A;Residues: 1-114 <NO2>
A;Residues: 1-114 <NO2>
A;Cross-references: UniProT:P25142; EMBL:X57932; NID:g38094; PIDN:CAA41003.1; PID:g82915:A;Cross-references: UniProT:P25142; EMBL:X57932; NID:g38094; PIDN:CAA41003.1; PID:g82915:A;Cross-references: University of the codon ACT for residue 54 as Trp
A;Note: the authors translated the codon ACT for residue 54 as Trp
R;Nolet, S.; St.-Louis, D.; Mbikay, M.; Chretien, M.
                                                                                                                                                                                                                                                                                                                          C;Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change C;Accession: 316237; A54663 R;Nolet, S.; Mbikay, M.; Chretien, M. Biochim. Biophys. Acta 1089, 247-249, 1991 A;Title: Prostatic secretory protein PSP(94): gene organization A;Reference number: $16237; MUID:91274357; PMID:2054385
                                                                        A,Title: Rapid evolution of prostatic protein PSP-94 suggested A,Reference number: A54663; MUID:91244325; PMID:2037304 A,Accession: A54663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N;Alternate names: prostatic secretory protein PSP94 C;Species: Macaca mulatta (rhesus macaque)
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                             A;Molecule type: mRNA
A;Residues: 1-114 <NO
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A;Cross-references: GB:M92161; NID:g342280; PIDN:AAA36903.1;
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PID:g342281

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sequence divergence

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09-Jul-2004

and

promoter

sequence

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transcription factor isl-2a (clone S3) - chinook salmon N;Alternate names: insulin enhancer-binding protein isl-2a; islet-2a protein C;Species: Oncorhynchus tschawytscha (chinook salmon) C;Date: 14-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 15-Oct-1999 C;Accession: S52089
                                                                                                                                     A;Gene: isl-2a
C;Superfamily: transcription factor isl-1; homeobox homology; LIM
C;Keywords: alternative splicing; DNA binding; homeobox; nucleus;
F;3-56/Domain: LIM metal-binding repeat homology <LIM>
                                                                                                                                                                                                                                                                                             A;Reference number: S52089; MUID:95178560; PMID:7873614
A;Accession: S52089
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                                                                                                                                                                                                                                  A;Cross-references: EMBL:X64882
A;Experimental source: clone S3
                                                                                                                                                                                                                                                                     A; Residues: 1-91 <GON>
                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                       R;Gong, Z.; Hew, C.L.
Biochim. Biophys. Acta 1260, 349-354, 1995
A;Title: Several splicing variants of isl-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-83 < CER>
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Conserved hypothetical protein AF1438 - Archaeoglobus fulgidus
C;Species: Archaeoglobus fulgidus
C;Species: Archaeoglobus fulgidus
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Accession: E69429
R;Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, K.A.; Dods, Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, E.
Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald, L.
Nature 390, 364-370, 1997
Nature 390, 364-370, 1997
Nature 390, 364-370, 1997
Smith, H.O.; Woese, C.R.; Venter, J.C.
Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing archa A;Reference number: A69250; MUID:38049343; PMID:3389475
A;Accession: E69429
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Himmelreich, R.; Hilbert, H.; Plagens, H.; Pirkl, E.; Li, B.C.; Herrmann, R. Nucleic Acids Res. 24, 4420-4449, 1996
A;Title: Complete sequence analysis of the genome of the bacterium Mycoplasma pneumoniae A;Reference number: $73327; MUID:97105885; PMID:8948633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Mycoplasma pneumoniae
A;Variety: ATCC 29342
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S73864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Introns: 1/3; 37/1; 72/2
C;Superfamily: seminal plasma protein
F;1-20/Domain: signal sequence #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: UNIPROT:P75480; A;Note: the nucleotide sequence was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-119 < HIM>
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                                                                                                                                                                                                                                 Cross-references: UNIPROT:028834; GB:AE001004; GB:AE000782; NID:g2689327;
                                                                                                                                                                                                                                                           Molecule type: DNA Residues: 1-127 <KLE>
                                                                                                                                                                                            Query Match
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Best Local :
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Pred. N
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                                                                                                                                             red. No. 50
Mismatches
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protein T16B5.9 [imported] - Arabidopsis thaliana (C;Species: Arabidopsis thaliana (mouse-ear coress) C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004 C;Accession: C86241 R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H. ansen, N.F.; Hughes, B.; Hulzar, L. Nature 408, 816-820, 2000 A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Maitti, F. C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maitti, F. Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
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R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B. ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M. Science 287, 1809-1815, 2000
A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; A;Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58. A;Reference number: A81000; MUID:20175755; PMID:10710307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004 (;Accession: G65019  
R;Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; F.A.; Rose, D.J.; Mau, B.; Shao, Y.  
Science 277, 1453-1462, 1997  
A;Title: The complete genome sequence of Escherichia coli K-12.  
A;Reference number: A64720; MUID:97426617; PMID:9278503  
A;Accession: G65019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:P76548; GB:AE000332; GB:U00096; A;Experimental source: strain K-12, substrain MG1655 C;Superfamily: Escherichia coli hypothetical protein b2448
                                                                                                                                                                                                                                           A;Cross-references: UNIPROT:Q9JZBO; A;Experimental source: serogroup B,
                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-155 < TET>
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R;Tettelin, H.; Sau
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Neisseria meningitidis
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                    A;Status: preliminary
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C;Species: Escherichia coli
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100.0%;
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0; Mismatches
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Pred. No.
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. 59;
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J.A.

Khaykin, E.; Maiti, R.; M

.; Kim, C.c Marziali,

White, y, T.H.

O.; Alonso, ; Dewar, K.;

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A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, Ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
A;Accession: C86241
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-167 <STO-
A;Cross-references: UNIPROT:Q9SAC5; GB:AE005172; NID:g4874271; PIDN:AAD31336.1; GSPDB:GN
C;Genetics:
C;Genetics:
A;Gene: T16B5.9
A;Map position: 1

Query Match
Best Local Similarity 100.0%; Pred. No. 63;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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2: uniprot_trembl:*
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## ALIGNMENTS

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PIR; G01730; G01730.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   characterization, and Int. J. Biochem. Cell
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L; X57929; CAA41002.1;

L; X57930; CAA41002.1;

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L; S67815; AAB29732.1;

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TISSUE SPECIFICITY: Strongly expressed in prostate, liver, kid breast and penis. Also expressed in pancreas, esophagus, stomadeodenum, colon, trachea, lung, salivary glands and fallopian tube. PSP94 is expressed in lung and breast, whereas PSP57 is found in kidney and bladder.

MISCELLANEOUS: Specific receptors for this protein are found of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          spermatozoa and in the prostate.
SIMILARITY: Belongs to the beta-microseminoprotein CAUTION: Was originally thought to inhibit the sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GO:0005615;
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Name=PSP57;
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M34373; AAA59871.1;
M34374; AAA59871.1;
M34374; AAA59871.1;
M34375; AAA59871.1;
M15885; AAA36635.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AJ133356;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  IPR008735; PSP94.
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Or C-60 with C-70 (By similarity).

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-!- SUBCELLULAR LOCATION: Secreted.
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01-NOV-1997 (Rel. 35,
05-JUL-2004 (Rel. 44,
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MEDLINE=97316893; PubMed=9174167;
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                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
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Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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Papio anubis (Olive baboon).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Secreted. Sperm surface (By similarity). SIMILARITY: Belongs to the beta-microseminoprotein family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 J.W.,
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004 (Rel. 44, Last annotation update)
roseminoprotein precursor (Prostate secreted seminal
(Prostate secretory protein PSP94) (PSP-94).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      requires a license agreement
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                               PRELIMINARY;
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Beta-microseminoprotein.
By similarity.
By similarity.
Or C-60 with C-70 (By sim
Or C-62 with C-69 (By sim
Or C-62 with C-69 (By sim
Or C-62 with C-69 (By sim
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Pred. No.
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Pred. No.
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/FTId=VSP_003276.
                               PRT;
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                                                                                                                                                                                                                                                                                                                                                                                           CRC64;
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     SEQUENCE FROM N.A.

(STRAIN-C578L)/61, TISUB=Pancreas;

(STRAIN-C578L)/61, TISUB=Pancreas;

(A Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,

(A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,

(A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,

(A Hanagaki T., Hara A., Hayatsu N., Hirawoto K., Hiraoka T., Hori F.,

(A Hanagaki T., Hara A., Hayatsu N., Izawa M., Kasukawa T., Kato H.,

(A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

(A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

(A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

(A Kawai J., Kojima Y., Konno H., Sahi K., Numazaki R., Ohno M.,

(A Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,

(A Matsuyama T., Miyazaki A., Oha C., Salto H., Salto R., Sakai K.,

(A Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,

(A Sogabe Y., Suzuki H., Tagamura T., Yasunishi A., Yoshida K., Yoshino M.,

(A Muramatsu M., Hayashizaki Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EP SEQUENCE FROM N.A.

(C STRAIN=C57BL/6J; TISSUE=Pancreas;

(C STRAIN=C57BL/6J; PubMed=11076861; DOI=10.1101/gr.152600;

(X MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

(X Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,

(A Sumin N., Ishii Y., Nakamura S., Hazama M., Nishine T., Itoh M.,

(A Sumin N., Ishii Y., Nakamura S., Hazama M., Nishine T., Kashiwagi K.,

(A Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,

(A Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,

(A Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

(A Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,

(A Yoneda Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

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(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

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(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;

(Matanity Muramatsu M., Inoue Y., Kir
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
45-OCT-2004 (TrEMBLrel. 17, Created)
45-OCT-2004 (TrEMBLrel. 18, Create
                                                                                                                                                                                                                                                                                                                                                                                                                                               Genome
[6]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibatkonno H., Okazaki Y., Muramatsu M., Hayashizaki Y., "Normalization and subtraction of cap-trapper-selected prepare full-length cDNA libraries for rapid discovery Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-C57BL/6U; TISSUE-Pancreas;
STRAIN-C57BL/6U; TISSUE-Pancreas;
MEDLINE-20499374; PubMed-11042159; DOI=10.1101/gr.145100;
MEDLINE-20499374; PubMed-11042159; DOI=10.1101/gr.145100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN=C57BL/60; TISSUE=Pancreas;
MEDLINE=21085660; PubMed=11217851;
RIKEN FANTOM Consortium;
"Functional annotation of a full-16
                               Submitted [7]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The FANTOM Consortium,
the RIKEN Genome Exploration Research Group
"Analysis of the mouse transcriptome based o
60,770 full-length cDNAs.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Meth.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=1810020E01Rik;
Mus musculus (Mouse)
  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nature 409:685-690(2001).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
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  FROM N
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Rodentia;
                                                         to the
                                                       EMBL/GenBank/DDBJ databases
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Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOI=10.1038/35055500;
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on functional annotation
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Furuno M.,
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RM MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Altasner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

RA Alteschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Alteschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Holatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Bischenko L., Marusina K., Farmer A.A., Rubin G.M., Prange C.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Rahla S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Willalon D.K., Marus D.M., Sodergren E.J., Dickson M.C.,

RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Rodriguez A.C., Grimwood J.W., Green E.D., Dickson M.C.,

RA ROdriguez A.C., Grimwood J.W., Green E.D., Dickson M.C.,

"Geners R.M., Schmutz J., Myers R.M., Butterfield Y.S.,

RT "Grimsoft A., Schmutz J., Myers R.M., Schein J.E.,

"Grimsoft A., Schmutz J., Myers R.M., Schmutz J., Myer
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Q7V5F4; Q7V5F4; C. 01-CCT-2003 (TremBirel. 25, C. 01-CCT-2003 (TremBirel. 25, L. 01-CCT-2003 (TremBirel.
                             SEQUENCE
                                                                                                                                                                                                                           SEQUENCE FROM N.A.

MEDLINE=22825698; PubMed=12917642; DOI=10.1038/nature01947;
Rocap G., Larimer F.W., Lamerdin J.E., Malfatti S., Chain P.,
Ahlgren N.A., Arellano A., Coleman M., Hauser L., Hess W.R.,
Johnson Z.I., Land M.L., Lindell D., Post A.F., Regala W., Shah
Shaw S.L., Steglich C., Sullivan M.B., Ting C.S., Tolonen A.,
Webb B.A., Zinser E.R., Chisholm S.W.;
                                                                                                                                                  niche differentiation.";
Nature 424:1042-1047(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Prochlorococcus marinus (strain MIT 9313).
Bacteria; Cyanobacteria; Prochlorales; Pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacterial regulatory proteins, AsnC OrderedLocusNames=PMT1607;
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EMBL; BC023171, AAH23171.1; -.
MGD; MGI:1913521, B10020E01Rik.
GO; GO:0016021; C:integral to membrane;
InterPro; IPR009801; DUF1370.
Pfam; PF07114; DUF1370; 1.
                                                                            InterPro; IPR009058; Wing_hlx_DNA
                                                                                                                                                                                                                 "Genome divergence in two Prochlorococcus ecotypes reflects oceanic
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STRAIN=FVB/N; TISSUE=Mammary tumor.
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215 AA
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100.0%; Pz
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                       E663AA68A216D0C5 CRC64;
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RESULT 5
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Best Local S
Matches 6
                                  EMBL;
                                                                                     This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entropean Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by anc
                                                                                                                                                                                                                                                                                       Matias P.M., Coelho R., Pereira I.A.C., Coelho Sieker L., LeGall J., Carrondo M.A.; "The primary and three-dimensional structures cytochrome c from Desulfovibrio desulfuricans member of the Hmc family."; Structure 7:119-130(1999).
                                                               or
                                                                                                                                                                                                             +++
                                                                                                                                                                                                                                                                                                                                                                   STRAIN=ATCC 27774;
MEDLINE=99148120;
                                                                                                                                                                                                                                                                                                                                                                                                                                               primary sequence determination, crystallographic refinement at 1.8 A and modelling studies of its interaction with the tetrahaem cytochrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nine-heme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=99400423; PubMed=104
Saraiva L.M., da Costa P.N.,
                                                                                                                                                                                                                                                                                                                                                                                              X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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Desulfovibrionaceae; Desu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-OCT-2001 (Rel. 40,
16-OCT-2001 (Rel. 40,
25-OCT-2004 (Rel. 45,
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16-OCT-2001
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                                                               send
                                                                                                                                                                                                                                                                                                                                                                                                                       Biol. Inorg.
                                                                                                                                                              SUBCELLULAR LOCATION: Periplasmic.

DOWAIN: Arranged into two tetraheme clusters and the is located asymmetrically between the two regions.

PTM: Binds 9 heme groups per subunit.

SIMILARITY: Contains 9 cytochrome c domains.
                                                                                                                                                                                                                                     sulfate.
SUBUNIT: Monomer.
                                                                                                                                                                                                                                                           FUNCTION: May form part of a transmembrane redox complex through which electrons are transferred to the cytoplasm for reduction of
                                   AF186393; AAD56586.1; -.
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an email to license@isb~sib.ch).
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                                                                                                                                                                                                                                                                                                                                                    PubMed=10368280; DOI=10.1016/S0969-2126(99)80019-7; ho R., Pereira I.A.C., Coelho A.V.; Thompson A.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=10555582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=10471375; DOI=10.1006/bbrc.1999.1238;
Costa P.N., LeGall J.;
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100.0%; Pr
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Desulfovibrio.
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k; Pred. No. 27;
0; Mismatches
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27774 reveal a new
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PIR; JC7094; PDB; 19HC; X

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PRINTS; PR00609; CYTOCHROMEC3
PROSITE; PS51008; MULTIHEME_C;
3D-structure; Electron transpo
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(heme 6 axial ligand).
(heme 8 axial ligand).
(heme 4 axial ligand).
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(heme 9 axia
8 (covalent)
8 (covalent)
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(heme 7
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(heme 2 axial ligand)
(heme 5 axial ligand)
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5 (covalent)
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Best Local S
Matches 6
EMBL; AL935258; CAD64544.1; -
HSSP; P14900; 2UAG.
HAMAP; MF 00639; -; 1.
InterPro; IPR004101; Mur_liga
InterPro; IPR000713; Mur_liga
InterPro; IPR005762; MurD.
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Mur_ligase_N
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                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.

STRAIN-NCIMB 8826 / WCFS1;

MEDLINE=22480296; PubMed=12566566; DOI=10.1073/pnas.0337704100;

Kleerebezem M., Boekhorst J., van Kranenburg R., Molenaar D.,

Klieere O.P., Leer R., Tarchini R., Peters S.A., Sandbrink H.M.,

Fiers M.W.E.J., Stiekema W., Klein Lankborst R.M., Bron P.A.,

Hoffer S.M., Nierop Groot M.N., Kerkhoven R., De Vries M., Ursing

De Vos W.M., Siezen R.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MURD LACPL STANDARD; PRT; 459 AA. 088V80; 29-MAR-2004 (Rel. 43, Created) 29-MAR-2004 (Rel. 43, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) UDP-N-acetylmuramoylalanine--D-glutamate ligase acetylmuramoyl-L-alanyl-D-glutamate synthetase)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria; Firmicutes; Lactobacillales; Lactobacillaceae;
Lactobacillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OrderedLocusNames=lp_2197;
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35025 MW; 2ED7025ADDF250E3 CRC64;
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(D-glutamic acid
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                                        GO; GO:0003824; F:catalytic activity; IE
GO; GO:0005506; F:iron ion binding; IEA.
InterPro; IPR00638; Elp3/MiaB/NifB.
InterPro; IPR006466; MiaB like B.
InterPro; IPR007197; Radical SAM.
InterPro; IPR007197; TRAM.
InterPro; IPR002792; TRAM.
InterPro; IPR002792; TRAM.
InterPro; IPR005839; UPF0004.
Pfam; PF04055; Radical SAM; 1.
Pfam; PF01938; TRAM; 1.
Pfam; PF01938; TRAM; 1.
SMART; SM00729; Elp3; 1.
SMART; SM00729; Elp3; 1.
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                                                                                                                                                                                                                                                                                                                                             Cheuk R., Chen H., Kim C.J., Shinn P., Bowser L., Carninci P., Chan M.M., Chang C.H., Dale J.M., Hayashizaki Y., Hsuan V.W., Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B., Lee J.M., Lin J., Miranda M., Narusaka M., Nguyen M., Onodera C.S., Palm C.J., Quach H.L., Sakurai T., Satou M., Seki M., Southwick A., Tang C.C., Toriumi M., Wong C., Wu H.C., Yamada K., Yu G., Yuan S., Shinozaki K., Davis R.W., Theologis A., Ecker J.R.; Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.

EMBL; BT002712; AAK56263.1; -.

EMBL; BT002712; AAK56263.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hypothetical p
Name=F28P5.4;
Arabidopsis th
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Q9C7H2;
Q1-JUN-2001
01-JUN-2001
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                        EMBL;
PIR; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bowser L., Carninci P., Cheuk R., Kim C.J., Meyers M.C., I shida J., Jones T., Kamiya A., Karlin-Neumann G., Ka Lee J.M., Lin J., Liu S.X., Miranda M., Narusaka M., Palm C.J., Pham P.K., Quach H.L., Sakano H., Sakurai Seki M., Southwick A., Toriumi M., Yamada K., Yu G., Submitted (MAR-2001) to the EMBL/GenBank/DDR1 Assessing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

Lin X., Kaul S., Town C.D., Benito M., Creasy T.H., Haas B.J., Wu Maiti R., Ronning C.M., Koo H., Fujii C.Y., Utterback T.R.,

Barnstead M.E., Bowman C.L., White O., Nierman W.C., Fraser C.M.,

Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
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Pfam; PF02875; Mur_ligase_C; 1.
ATP-binding; Cell division; Cell
Peptidoglycan synthesis.
NP_BIND 119 125 ATP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. Shinn P., Chen H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Spermatophyta; Magnoliophyta; eudicotyle eurosids II; Brassicales; Brassicaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Viridiplantae;
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(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 27, Last annotation update)
protein F28P5.4 (At1g72090/F28P5_4).
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50137 MW;
        MiaB-like-B;
UPF0004; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20.0%;
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ne EMBL/GenBank/DDBJ databases.
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/ta; eudicotyledons; core eu
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, 083AB3E45C599DC9
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A.D., Hayashizaki Y.,
n G., Kawai J., Lam B.
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i T., Satou M.,
Shinozaki K.,
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Best Local S
Matches 6
                                                                                                                                                            MEROPS; SO8.094; ...

Interpro; IPR005546; Auto transporter.
Interpro; IPR006315; Autotransporter.
Interpro; IPR006315; Pept S8 S3.
Interpro; IPR011165; Pept S8A autrans.
Pfam; PF03797; Autotransporter; 1.
Pfam; PF00082; Peptidase S8; 1.
PIRSF; PIRSF001164; Autotransborters.
PRINTS; PR00723; SUBTILISIN.
PRINTS; PR00723; SUBTILISIN.
  Zymogen.
SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-1989 (Rel. 10, Created)
01-MAR-1989 (Rel. 10, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Extracellular serine protease precursor (EC 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _SERMA
                                                                                         TIGRFAMS; TIGR01414; autotrans barl; 1.
PROSITE; PS00136; SUBTILASE AS5; FALSE;
PROSITE; PS00137; SUBTILASE HIS; 1.
PROSITE; PS00138; SUBTILASE_SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entropean Bioinformatics Institute. There are no restues by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of Serratia marcescens serine protease Escherichia coli.";
J. Biochem. 111:627-632(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PARTIAL SEQUENCE, AND ENGLISHED PROPERTY OF THE PROPERTY OF T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yanagida N., Uozumi T., Beppu T.;
"Specific excretion of Serratia marcescens
membrane of Escherichia coli.";
J. Bacteriol. 166:937-944(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Serratia marcescens.
Bacteria; Proteobacteria; Gammaproteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                  PIR; A29840; A29840.
                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; M13469; AAA26572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the peptidase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.,
STRAIN=IFO 3046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hypothetical SEQUENCE 6
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                                                                                                                                                                                                                                                                                                                                                                                  Q99405; 1MPT.
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                                                                    procein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  non-profit institutions as long and this statement is not removed. requires a license agreement (See
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PS01278; UPF0004;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CETCTC
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      28
                                                                  sequencing;
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                                                                    Hydrolase;
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Extracellular serine protease
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6 outstation -
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Q8IA76;
Q1-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Phospholipase c like protein 1, isoform b.
Name=pil-1; ORFNames=K10F12.3;
Wormbase; WBGene00004045; pll-1.

wormbep; K10Fl2.3b; CE311037.
GO: GO:0004435; F:phospholinositide phospholipase CGO; GO:0007242; P:intracellular signaling cascade; GO:0006629; P:lipid metabolism; IEA.

InterPro; IPR0090973; C2.
InterPro; IPR0089773; C2 CALB.

InterPro; IPR001849; PH.
                                                                                                                                                                  SEQUENCE FROM N.A. CTPAIN=Bristol N2;
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STRAIN-Bristol N2;
Wohldmann P., Beck C.;
"The sequence of C. elegans
Submitted (SEP-1997) to the
                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Wilson R.,
Submitted
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MEDLINE=99069613; PubMed=9851916;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WormBase Consortium, "Genome sequence of the nematode C. "Genome sequence of the C. elega investigating biology. The C. elega Science 282:2012-2018(1998).
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                                                                                                                                                                                                                                                                                                                                         Submitted
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EMBL/GenBank/DDBJ
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Mo. 1.2e+02;
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(By similarity).
(By similarity).
(CRC64;
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Best Local
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QSIA75;
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Wohldmann P., Beck C.;
"The sequence of C. elegans
"The sequence of C. elegans
                                                                                                                                                                               SEQUENCE FROM N.A. STRAIN=Bristol N2; Wilson R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WormBase Consortium;
WormBase Consortium;
"Genome sequence of the nematode C. elegans: a platform for investigating biology. The C. elegans Sequencing Consortium.";
  SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                STRAIN=Bristol Wilson R.;
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MEDLINE=99069613;
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                                                               Submitted
                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                  Submitted
                                                                                                                                                                                                                                                                 Submitted
                                                                                                                                                                                                                                                                                    Waterston
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PROSITE; PS50007; PIPLC X DOMAIN; 1.
PROSITE; PS50008; PIPLC Y DOMAIN; 1.
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PRINTS; PR00390; PHPHLIPASEC.
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PF00388; PI-PLC-X; 1.
PF00387; PI-PLC-Y; 1.
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SM00149; PLCYc; 1.
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                                                                                                     N2;
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                                                               EMBL/GenBank/DDBJ
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EMBL/GenBank/DDBJ
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Pred. No.
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5. 1.2e+02;
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EMBL; AF025402; .....

DR HSSP; P10688; IDJH.

WormBase; WBGene000040405; pll-1.

DR WormPaps (101912.3a; CE31036.

DR GO; GO:0004435; F:phosphoinositide phospholipase C activity; IEA.

DR GO; GO:000724; P:intracellular signaling cascade; IEA.

DR GO; GO:0006629; P:lipid metabolism; IEA.

DR InterPro; IPR000008; C2.

DR InterPro; IPR000008; C2.

DR InterPro; IPR001036; PH related.

InterPro; IPR011036; PH related.

InterPro; IPR011036; PH related.

InterPro; IPR001192; PI PLC X.

Therepro; IPR001711; PI_PLC X.
 RESULT 11
Q7QZU9
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Best Local
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PRINTS, PRO0390; PHPHLIPASEC.

PRODOM, PD001202; PI PLC_Y; 1.

SMART; SM00239; C2; I.

SMART; SM00233; PH; 1.

SMART; SM00143; PLCYC; 1.

SMART; SM00149; PLCYC; 1.

SMART; SM00149; C2 DOWAIN 2; 1.

PROSITE; PS500004; C2 DOWAIN 2; 1.

PROSITE; PS500007; PIPLC X DOWAIN; 1.

PROSITE; PS50008; PIPLC Y DOWAIN; 1.

SEQUENCE 1075 AA; 12111 MW; 610211
                                                                                                                                          Olsen G.J., Sogin M.L.;
"Draft sequence of the Giardia lamblia genome.";
submitted (MAR-2003) to the EMBL/GenBank/DDBJ dat
-!- CAUTION: The sequence shown here is derived f
EMBL/GenBank/DDBJ whole genome shotgun (WGS)
                                                                                                                                                                                                                                                                                                                                      Q7QZU9
Q7QZU9;
01-MAR-2004
             Pfam;
                               GO; GO:0005198; F:structural molecule InterPro; IPR000742; EGF 2. InterPro; IPR006209; EGF Tike. InterPro; IPR005127; Giardia VSP. InterPro; IPR009030; Grow fac recept. InterPro; IPR002049; Laminin EGF.
                                                                                                                                                                                                                                                                       GLP_609_15416_20263.
Giardia lamblia ATCC 50803.
Eukaryota; Diplomonadida; Hexamitidae;
                                                                                                               EMBL; AACB01000040; EAA40566.1; -. HSSP; P35555; 1EMN.
                                                                                                                                                                                                                              STRAIN-WB
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01-MAR-2004
                                                                                                                                                                                                           Morrison_H.G., McArthur A.G., Adam R.D.,
                                                                                                                                                                                                                                                             NCBI_TaxID=184922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (SEP-2004) to the EMBL/GenBank/DDBJ-!-SIMILARITY: Contains 1 C2 domain.
                                                                                                                                                                                                                                       EQUENCE FROM N.A.
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                                                                                                                                      preliminary data
                                                                                                                                                                                                                                                                                                                                                                                                                               317
 PF000008; EGF; 2.
PF00053; Laminin
PF03302; VSP; 1.
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Laminin_EGF; 1. VSP; 1.
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100.0%; Pred. No. 1.:
tive 0; Mismatches
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Last sequence update)
Last annotation updat
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                                                                                               activity;
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. 1.2e+02;
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RESULT 13
Q9J5AD
ID Q9J5A
AC Q9J5A
AC Q9J5A
AC Q9J5A
DT 01-QC
DT 01-JU
DE ORF F
GN Name=
OS FOWLIF
OC Virus
OC Avipo
OC Avipo
OC NCBI
RN NCBI
RN I1]
RN GDI=1
RN MEDLI
RX SEQUE
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Q70H34;
Q70H34;
Q70H324;
Q5-JUL-2004 (TrEMBLrel. 27, Last se
Q5-JUL-2004 (TrEMBLrel. 27, Last an
Q5-JUL-2004 (TrEMBLrel. 27, Last an
MEDLINE-2013820; PubMed-10729156;
DOI-10.1128/JVI.74.8.3815-3831.2000;
Afonso C.L., Tulman E.R.; Lu Z., Zsak
"The genome of fowlpox virus.";
J. Virol. 74:3815-3831(2000).
EMBL; AF198100; AAF44466.1; -
InterPro; IPR007490; Poxvirus B22R.
Pfam; PF04395; Poxvirus B22R; 1.
SEQUENCE 1870 AA; 211756 MW; 2423D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
Skinner M.A., Laidlaw S.M.;
Skinner M.A., Laidlaw S.M.;
Skinner M.A., Laidlaw S.M.;
Skinner M.A., Laidlaw S.M.;
Comparison of the genome sequence of FP9,
culture-adapted European fowlpox virus, wi
American and European viruses.";
J. Gen. Virol. 85:305-322(2004).
EMBL; AJ581527; CAE52663.1;
InterPro; IPR007490; Poxvirus B22R.
Pfam; PF04395; Poxvirus B22R; 1.
SEQUENCE 1870 AA; 211756 MW; 2423D319
                                                                                                                                                                                                                                                                                       Q9J5A0;
Q9J5A0;
01-OCT-2000
                                                                                                                                                                                                                                              Name=FPV122;
                                                                                                                                                                                                                                                      01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UU-2003 (TrEMBLrel. 24, Last annotation update)
0RF FPV122 variola B22R gene family protein.
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PROSITE;
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Name=fp9.122;
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PS01186; EGF 2; 12.
PS01248; EGF 3; 2.
PS01248; LAMININ TYPE EGF; 4.
1615 AA; 169595 MW; B88E3D60D18B4F27 CRC64;
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100.0%; Pred. No. 1.8e+02;
/ative 0; Mismatches 0;
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tive 0; Mismatches
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, no RNA stage; Poxviridae; Chordopoxvirinae;
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    2423D319743D3F2F CRC64;
                                                                                                   Zsak
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NO. 2e+02;
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s, with those of virulent
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RESULT 14

LMA2 HUMAN
RM HITVO
RT Fetal
RN (1)
RN (2)
RN (2)
RN (2)
RN (2)
RN (3)
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Matches 6
                                                                   "Congenital muscular dystrophy with chain deficiency: molecular study."; Neurology 57:1319-1322(2001).
                                                                                                                                                        MEDLINE=21476011; PubMed=11591858;
He Y., Jones K.J., Vignier N., Mor
Estournet-Mathiaud B., Hori H., Mi
                                                                                                                                                                                                                                                                                                                                                                                 Marzluf G.A., Amato A.A., Mendell J.R.;
"Novel single base polymorphisms and rare sequence variants laminin 2-chain coding region detected by RNA/SSCP analysis. Hum. Mutat. 13:174-174(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=94124633; PubMed=8294519; DOI=10.1083/jcb.124.3.381; Vuolteenaho R., Nissinen M., Sainio K., Byers M., Eddy R., Hirvonen H., Shows T.B., Sariola H., Engvall E., Tryggvason K.; "Human laminin M chain (merosin): complete primary structure, "chromosomal assignment, and expression of the M and A chain in human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P24043; Q14736; Q93022;
01-MAR-1992 (Rel. 21, C
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Marzluf G.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhang X., Vuolteenaho R., Tryggvason K.;
"Structure of the human laminin alpha2-chain
affected in congenital muscular dystrophy.";
J. Biol. Chem. 271:27664-27669(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=97066955; PubMed=8910357; DOI=10.1074/jbc.271.44.27664;
                                                                                                                                         Guicheney P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fetal
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Ol-NOV-1997 (Rel. 35, Last sequence update)
25-JAN-2005 (Rel. 46, Last annotation update)
Laminin alpha-2 chain precursor (Laminin M chain) (Merosin heavy
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                     VARIANTS MDC1A TYR-527 AND ARG-862
                                                                                                                                                                                                                                     VARIANT MDC1A PRO-2564.
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a tissue-specific basement
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., Amato A.A., Mendell J.R.;
13:340-340(1999).
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PubMed=12552556; DOI=10.1002/humu.10157;
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100.0%; Pred. No.
cive 0; Mismatch
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                                                                                                                                                            Morgan G
, Mizuta
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5. 2e+02;
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                                                                                                              partial laminin alpha-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entities requires a license agreement (S or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hum. Mutat. 21:103-111(2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISEASE: Defects in LAMA2 are the cause of merosin-deficient congenital muscular dystrophy type 1A (MDCIA) [MIM:607855]. It is characterized by difficulty walking, hypotonia, proximal weakness, hyporeflexia, and white matter hypodensity on MRI. SIMILARITY: Contains 17 laminin EGP-like domains.

SIMILARITY: Contains 5 laminin EGP-like domains.

SIMILARITY: Contains 2 laminin IV domains.

SIMILARITY: Contains 1 laminin N-terminal domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cardiac muscle, pancreas, lung, spleen, kidney, adrenal gland, skin, testis, meninges, choroid plexus, and some other regions of the brain; not in liver, thymus and bone DOMAIN: The alpha-helical domains I and II are thought to interact with other laminin chains to form a coiled coil structure. DOMAIN: Domains VI, IV and G are globular.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBUNIT: Laminin is a complex glycoprotein, consisting of three different polypeptide chains (alpha, beta, gamma), which are be to each other by disulfide bonds into a cross-shaped molecule comprising one long and three short arms with globules at each end. The alpha-2 chain is a subunit of laminin-2 (merosin) and laminin-4 (S-merosin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: Binding to cells via a high affinity receptor, laminin is thought to mediate the attachment, migration and organization of cells into tissues during embryonic development by interacting with other extracellular matrix components.
                 066734 AAB18388.1 1066735 AAB18388.1 1066739 AAB18388.1 1066739 AAB18388.1 1066739 AAB18388.1 1066739 AAB18388.1 1066741 AAB18388.1 1066742 AAB18388.1 1066745 AAB18388.1 1066746 AAB18388.1 1066746 AAB18388.1 1066748 AAB18388.1 1066748 AAB18388.1 1066749 AAB18388.1 1066749 AAB18388.1 1066751 AAB18388.1 1066752 AAB18388.1 1066753 AAB18388.1 1066754 AAB18388.1 1066755 AAB18388.1 1066755 AAB18388.1 1066756 AAB18388.1 1066757 AAB18388.1 1066757 AAB18388.1 1066758 AAB18388.1 1066758 AAB18388.1 1066758 AAB18388.1 1066758 AAB18388.1 1066758 AAB18388.1 1066758 AAB18388.1 1066759 AAB18388.1 1066758 AAB18388 AAB1838 AAB18388 AAB1838 AAB18
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TISSUE SPECIFICITY: Placenta, striated muscle,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBCELLULAR LOCATION: Extracellular; found in the basement
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AAB18388.1;
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JOINED
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InterPro; IPR003129; TSP N.
Pfam; PF00052; Laminin_B; 2.
Pfam; PF00053; Laminin_EGF; 14.
Pfam; PF00054; Laminin_G; 5.
Pfam; PF06008; Laminin_I; 1.
Pfam; PF06008; Laminin_I; 1.
Pfam; PF06009; Laminin_I; 1.
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                                                                                                                           PRINTS; PRO0011; EGFLAMININ.

ProDom; PD003031; Laminin B; 2.

PROSITE; PS00022; EGF 1; I1.

PROSITE; PS00126; EGF_2; 3.

PROSITE; PS01248; LAMININ TYPE_EGF; 14.

Basement membrane; Cell adhesion; Coiled coil;

Congenital muscular dystrophy; Direct protein sequencing;
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InterPro;
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GO; GO:0005504; C:basement membrane; TAS.
GO; GO:0005198; F:structural molecule activity;
GO; GO:0007517; F:muscle development; TAS.
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FIR008030; Grow fac recept.
FIR009034; Laminin B.
FIR002049; Laminin EGF.
FIR001791; Laminin I.
FIR009254; Laminin I.
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IPR006209; EGF_like.
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15-JUL-1999 (Rel. 38, I
05-JUL-2004 (Rel. 44, I
                                                                                                                                                                                               DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE, CHARACTERIZATION, AND MASS SPECTROMETRY.
STRAIN=Hector; TISSUE=Hemolymph;
MEDLINE=97094646; PubMed=8939880; DOI=10.1074/jbc.271.47.29537;
Ehret-Sabatier L., Loew D., Goyffon M., Fehlbaum P., Hoffmann J.A.,
van Dorsselaer A., Bulet P.;
van Dorsselaer A., Bulet P.;
van Porsselaer A., Bulet P.;
van Dorsselaer A., Bulet P.;
van Dorsselaer A., Bulet P.;
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                                                                                                                                                                    SEQUENCE
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Buthida; Buthoidea; Buthidae; Androctonus.
                                                                                                                                                                                                                         Pfam; PF01097; Defensin 2; 1.
PROSITE; PS00425; ARTHROPOD DEFENSINS; 1.
Antibiotic; Defensin; Direct protein sequ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 kDa defensin.
                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                J. Biol. Chem. 271:29537-29544(1996).

-!- FUNCTION: Active against Gram-positive bacteria.
-!- SUBCELLULAR LOCATION: Secreted.
-!- SUBCELLULAR INCAPTION: Secreted.
-!- MASS SPECTROMETRY: NW=4206.8; METHOD=Electrospray; RANGE=1-37;
-!- NOTE=Ref.1.
NOTE=Ref.1.
-!- SIMILARITY: Belongs to the arthropod defensin family. Subfamily 2.
HSSP; P80571; 1EJN.
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Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
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| Aao17958 Human pro | Aao17957 Human pro | Aao17956 Human pro | Aao17955 Human pro | Aao17954 Human pro | Aao17953 Human pro | Aao17952 Human pro | Aao17951 Human pro | Aao17950 Human pro | Aao17949 Human pro | Aao17948 Human pro | Aao17947 Human pro | Aao17946 Human pro | Aao17945 Human pro | Aao17944 Human pro | Aao17943 Human pro | Aao17942 Human pro | Aao17941 Human pro | Aao17940 Human pro | Aao17939 Human pro |

### ALIGNMENTS

RESULT 1

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CC pres Synthetic. Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; Human PSP94 analogue 30-AUG-2002 AAO17998 standard; protein; 15-OCT-2001; 2001WO-CA001463 25-APR-2002. WO200233090-A2 benign prostate hyperplasia; cytostatic. AA017998; (first entry) adaptor peptide 45 ₿ #2

16-OCT-2000; 2000CA-02321256. 20-AUG-2001; 2001CA-02355334.

(PROC-) PROCYON BIOPHARMA INC

Garde S; Panchal CJ, Baijal-Gupta M, Fraser ç Kadhim

S

WPI; 2002-471401/50.

New human prostate secretory protein of 94 amino acids, use inhibiting growth of e.g. tumor, prostatic adenocarcinoma, gastrointestinal, breast, endometrial, and ovarian cancers. useful for stomach,

Disclosure; Page 106; 185pp; English

growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting

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                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, overian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                                                                                                                                                                     Sequence
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20-AUG-2001; 2001CA-02355334.
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Pred. No. 3.2e-43;
Mismatches 0;
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RESULT 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acids, useful adenocarcinoma, ston ovarian cancers.
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Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoms stomach cancer; breast cancer; endometrial cancer; ovarian cancer;

Human 30-AUG-2002

prostate

secretory protein of 94 amino

acids PSP94 analogue

(first

entry)

AA017917;

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Matches
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                                                                                                                                                                   Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plaema inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                microseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
            16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
                                                  15-OCT-2001; 2001WO-CA001463.
                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                      Human
                                                                                                                                                                                                                                                                30-AUG-2002
                                                                                                                                                                                                                                                                                         AAO17918;
                                                                                                                                                                                                                                                                                                                  AAO17918 standard; peptide; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to analogues of the human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 2; Page 76; 185pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                  EWQTDNCETCTCYETE
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                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                    secretory protein of 94 amino acids PSP94 analogue
                                                                                                                                                        hyperplasia;
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Pred. No.
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3e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acids, useful for adenocarcinoma, stomach, ovarian cancers.
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The present invention relates to analogues
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RESULT 6
AAO17919
ID AAO11
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XX AAO1
XX AAO1
XX AAO1
XX AAO1
XX Beta
XX Canc
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Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (BSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamincroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                       New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human prostate secretory protein of 94 amino acids PSP94 analogue #8
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20-AUG-2001; 2001CA-02355334.
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                                                      Page 77; 185pp; English.
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ilarity 100.0%;
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hyperplasia; cytostatic
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                                                                                                            amino acids, useful adenocarcinoma, stor ovarian cancers.
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of the

human prostate

secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The

present sequence

is an analogue of the invention

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RESULT 7
AAO17920
ID AAO1
XX AAO1
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XX AAO1
XX Canc
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                                                                                                                       The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP). The analogues are useful for inhibiting growth of tumours, prostatic adenoarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                        New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                        Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                              Claim 2;
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20-AUG-2001; 2001CA-02355334.
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        35.6%;
100.0%;
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           Score
Pred.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
16;
No.
        DB 5; Le 3.5e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fraser J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 5; L
                                                                                                                                                                                                                                                                                                                                                                                                                                                           adenocarcinoma, ovarian cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acids, useful
                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    stomach,
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RESULT 9
AAO17922
ID AAO1
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AC AAO1
XX

standard;

peptide;

21

A

AAO17922; AA017922

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RESULT 8
AAO17921
ID AO21
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                                                                                                            Query Match
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                                                                                                                                                                                                                                                                                             The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 2; Page 77; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                 present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-471401/50.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-OCT-2000;
20-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-AUG-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA017921;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human prostate secretory protein of 94 amino acids PSP94 analogue #10
                                                                                                               16;
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                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                           sequence is an analogue of the invention
                                                                                                                                                                                                                         20
                                      EWOTDNCETCTCYETE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EWOTDNCETCTCYETE
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                                                                                                                                                                                                                         A,
                                                                                                            Conservative
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2001CA-02355334.
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                                                                                              35.6%; 5
100.0%; Pr
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16
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                                                                                                         Score 16; DB 5; L; Pred. No. 3.7e-11; 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fraser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acids, useful for adenocarcinoma, stomach, ovarian cancers.
                                                                                                                                                           Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          o
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                                                                                                         Gaps
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RESULT 10
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Matches 16
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                                                                                                     Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostatic secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      beta-microseminoprotein; human seminal placema '--'''.
prostate communication beta-microseminoprotein; but an adminal placema '--''''
                                                                                                                                                                                                                   Human
                                                                                                                                                                                                                                                            30-AUG-2002
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20-AUG-2001; 2001CA-02355334.
      WO200233090-A2
                                                                                                                                                                                                                                                                                                                                         AAO17923 standard; peptide; 22
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                                              Homo sapiens
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                                                                                                                                                                                                                prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Page 78; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prostate
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                                                                                     prostate
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EWOTDNCETCTCYETS
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                                                                                                                                                                                                                secretory protein of 94 amino acids PSP94 analogue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hyperplasia; cytostatic.
                                                                                     hyperplasia; cytostatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35.6%; but
100.0%; Pr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                              8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 5; Le
3.8e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    amino acids, useful for adenocarcinoma, stomach, ovarian cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 21;
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RESULT 11
AAO17924
ID AAO17
XX Cance
KW beta-
KW prost
XW beta-
KW prost
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XX Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSD1) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                                                                                                                                                                                   beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
    WPI; 2002-471401/50
                                           Garde S,
                                                                                                                             16-OCT-2000; 2000CA-02321256
20-AUG-2001; 2001CA-02355334
                                                                                                                                                                                          15-OCT-2001; 2001WO-CA001463
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cancer; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human prostate secretory protein of 94 amino acids PSP94 analogue #13.
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                      Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                               prostate
                                                                                     PROCYON BIOPHARMA INC
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                                           Panchal CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Panchal CJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            is an analogue of the invention
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                                           Baijal-Gupta M,
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Pred. No.
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4e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino acids, useful for adenocarcinoma, stomach ovarian cancers.
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                                              Kadhim S;
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beta-MSP;

New human prostate secretory protein of 94 amino acids, useful inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stogastrointestinal, breast, endometrial, and ovarian cancers.

stomach,

for

English.

Claim

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RESULT 12
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The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                     Claim 2;
                                                                                                                                                                                                                                                       inhibiting growth gastrointestinal,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-OCT-2000;
20-AUG-2001;
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                                                              The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSR1) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, overian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                                                                                                                                                           New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
  Sequence 25
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                          2; Page 79; 185pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human prostate secretory protein of 94 amino acids, useful inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stongastrointestinal, breast, endometrial, and ovarian cancers.
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Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP
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20-AUG-2001; 2001CA-02355334.
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                                                      Human prostate secretory protein of 94 amino acids PSP94 analogue #17.
                                                                                                                      30-AUG-2002
                                                                                                                                                                                AA017928
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-OCT-2001; 2001WO-CA001463.
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                                                                                                                                                                                                                                                                                                                                                                                                                           EWQTDNCETCTCYETE 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26 AA;
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                                                                                                                                           growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                   Sequence 27 AA;
                                                                                                                                                                                                                     The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP) and beta-microseminoprotein (bets-MSP)). The analogues are useful for inhibiting
                                                                                                                                                                                                                                                                                                                           New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarci stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                                                                                                                                                                Claim 2;
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US-08-460-309-17-70
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US-09-947-016-5937
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| 45                  | 44                | 43                  | 42                | 41                | 40                | 39                | 38                | 37                 | 36               | 35                | 34                | 33                | 32                | 31                   | 30                | 29                  | 28                  |
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| US-09-543-681A-5873 | US-08-482-282B-4  | US-09-902-540-14527 | PCT-US96-09848-4  | US-08-768-619-4   | US-09-005-298-4   | US-08-486-036A-4  | US-09-962-357-8   | US-09-328-352-5038 | US-08-125-077-16 | US-08-125-077-15  | US-08-460-309-16  | US-08-460-309-15  | US-09-265-540E-4  | US-09-248-796A-21826 | US-08-685-466C-4  | US-09-270-767-61692 | US-09-513-999C-7055 |
| Sequence 5873, Ap   | Sequence 4, Appli | Sequence 14527, A   | Sequence 4, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 8, Appli | Sequence 5038, Ap  | •                | Sequence 15, Appl | Sequence 16, Appl | Sequence 15, Appl | Sequence 4, Appli | Sequence 21826, A    | Sequence 4, Appli | Sequence 61692, A   | Sequence 7055, Ap   |

ALIGNMENTS

### US-07-899-535A-1 RESULT 1 US-07-899-535A-1 ZIP: 22202 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/07/899,535A FILING DATE: 16-JUN-1992 CLASSIFICATION: 514 ATTORNEY/AGENT INFORWATION: NAME: Loud, George A. REGISTRATION NUMBER: 25,814 DEFENDENCE OF OFFET MINDERS. 25,814 DEFENDENCE OF OFFET MINDERS. 25,814 Sequence 1, Appril TELEX: 24 8614 INFORMATION FOR SEQ ID NO: GENERAL INFORMATION: REFERENCE/DOCKET NUMBER: SITELECOMMUNICATION INFORMATION TELEPHONE: 703-415-0960 APPLICANT: Panchal, Chandra J. APPLICANT: Panchal, Chandra J. TITLE OF INVENTION: Pharmaceutical Preparations For TITLE OF INVENTION: Inhibiting Tumours Associated With TITLE OF INVENTION: Adenocarcinoma, Stomach Cancer and MOLECULE TYPE: HYPOTHETICAL: SEQUENCE CHARACTERISTICS: LENGTH: 94 amino acide CORRESPONDENCE ADDRESS: NUMBER OF SEQUENCES: STREET: 2 CITY: Arl STATE: Vi COUNTRY: TOPOLOGY: STRANDEDNESS: TELEPHONE: 703-415-0962 ADDRESSEE: Arlington 94 amino acids amino acid Virginia 7: U.S.A. Application US/07899535A 2001 Jefferson ESS: single linear Sheth, Anil R. Garde, Seema .. protein М Т George Loud Davis Highway, Suite 306 S&B-A835 Prostate Breast Cancer.

Matches Query Match

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SEQ ID NO 7807
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FILE REFERENCE: 59.US2.REG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7807, Application US/09513999C Patent No. 6783961
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NAME/KEY: SIGNAL
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OTHER INFORMATION: 6
OTHER INFORMATION: 6
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APPLICANT: Engval
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CURRENT FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/122,487
PRIOR FILING DATE: 1999-02-26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Duclert, A. APPLICANT: Giordano, J.Y.
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TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                  tent No. 5837496
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Dumas Milne Edwards, J.B.
                                                         FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
          APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10730
                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                              CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
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4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                USA
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Leivo, Ilmo
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21-SEP-1994
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seq VVIFATFVTLCNA/SC
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Fragments and Uses Thereof
23
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                                                                                                             US/08/460,309
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Pred. No.
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; Sequence 17, App1:
5872231
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APPLICANT: Engvall, Eva
APPLICANT: Leivo, Ilmo
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INFORMATION FOR SEQ ID NO:
                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                              REFERENCE/DOCKET NUMBER: P-LA TELECOMMUNICATION INFORMATION:
                                                                           FILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,81
                                                                                                                                                                                                       APPLICATION NUMBER: US POSITION DATE: 21-SEP-1994
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                          CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin TITLE OF INVENTION: Fragments and Uses Thereof NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 241 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 07/919,951
FILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
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                              TELEPHONE:
                                                                                                                                                                          APPLICATION NUMBER: US 07/472,319
FILING DATE: 30-JAN-1990
                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA
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)GY: linear
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(619) 535-89
OR SEQ ID NO:
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                              (619) 535-9001
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100.0%;
                                                                                                                                             US 07/919,951
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                                                                           31,815
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                                                      ; TYPE: PRT
; ORGANISM: Human
US-09-949-016-7517
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US-09-248-796A-20514
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                                                                                                                                                                    CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
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GENERAL INFORMATION:
APPLICANT: Keith Weinstock et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICAN
TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.132
CURRENT APPLICATION NUMBER: US/09/248,796A
CURRENT FILING DATE: 1999-02-12
PRIOR APPLICATION NUMBER: US 60/074,725
PRIOR FILING DATE: 1998-02-13
                                                                                                               SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 7517
LENGTH: 2123
                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF PILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT PILING DATE: 2000-04-14
PRIOR APPLICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 28208
SEQ ID NO 20514
LENGTH: 362
TYPE: PRT
Query Match
Best Local Similarity
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Local Similarity 100.0%; Pred. No.
hes 6; Conservative 0; Mismatci
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o. 6812339
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13.3%;
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Score 6; DB 4;
Pred. No. 59;
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5. 7.9;
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                  Length 2123;
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                                                                                                                     US-09-562-702A-8
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SQ ID NO 7
LENGTH: 3070
TYPE: PRT
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                                                          Matches
                                                                                                                                                                                SEQ ID NO 8
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                                                                                       Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: HE-STUMPP, HOLGER
APPLICANT: HAENDLER, BERNAR
APPLICANT: KRAETZSCHMAR, JO
APPLICANT: KREFT, BERTHOLT
                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Laminin 2 and Methods for Its Use FILE REFERENCE: 99-274-B
CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILLING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR PELICATION NUMBER: 60/155,945
PRIOR PILLING DATE: 1999-09-24
PRIOR PILLING DATE: 1999-09-24
PRIOR PILLING DATE: 1999-07-12
PRIOR FILLING DATE: 1999-07-12
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CURRENT APPLICATION NUMBER: US/09/961,403
CURRENT FILING DATE: 2001-09-25
                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/131,720 PRIOR FILING DATE: 1999-04-30
                                                                                                                                                   LENGTH: 30
                                                                                                                                                                                              SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 32
                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: 60/139,198 PRIOR FILING DATE: 1999-06-15
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Yurchenco, Peter
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                                                                                                                                   ORGANISM: Homo sapiens
                                                          Local Similarity
nes 6; Conserv
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367 NCETCT 372
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                          NCETCT 11
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REGIDOR, PEDRO
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KREFT, BERTHOLT
                                                          Conservative
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100.0%; Pred. No. 83;
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0; Mismatches
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CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
PRIOR PILING DATE: 1999-07-12
PRIOR PILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR PILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR PILING DATE: 1999-06-15
PRIOR PILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR FILING DATE: 1999-06-30
PRIOR FILING DATE: 1999-06-30
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CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR FILING DATE: 1999-04-30
                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.0
SEQ ID 00 2
                                                                                   Matches
                                                                                                                            Query Match
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Patent No. 6632790
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Best Local Similarity
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Patent No. 6632790
                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 32
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                                                                                                                                                                                          LENGTH: 3110
TYPE: PRT
ORGANISM: Homo sapiens
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SOFTWARE: PatentIn Ver. 2
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TYPE: PRT
ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PPLICANT: Yurchenco,
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389 NCETCT 394
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100.0%; Pred. No. 83;
cive 0; Mismatches
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RESULT 11

RESULT 13 US-09-17-254-86 ; Sequence 86, Application US/09917254 ; Patent No. 6703204

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                                                                      Matches
                                                                                                         Query Match
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                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Champliaud, Marie-France
APPLICANT: Olson, Pamela
APPLICANT: Woth, Manuel
APPLICANT: Brunken, William
TITLE OF INVENTION: LAWINING AND USES THEREOF
FILE REFERENCE: 10287-060001
CURRENT APPLICATION NUMBER: US/09/561,709B
CURRENT FILING DATE: 2000-05-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No.
                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 09/168,949
PRIOR FILING DATE: 1998-10-09
PRIOR APPLICATION NUMBER: US 60/061,609
PRIOR FILING DATE: 1997-10-10
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CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Burgeson, Robert
APPLICANT: Champliaud, Mar
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                                                                                                                                                            LENGTH: 3110
TYPE: PRT
ORGANISM: Homo sapiens
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TYPE: PRT
ORGANISM: Homo sapiens
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es 6; Conserv
389 NCETCT 394
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5. 6682911
                                   6 NCETCT 11
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100.0%; Pred. No. 83
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; ORGANISM: Homo Sapiens
US-09-917-254-86
                                                                                                                                                                                  Sequence 4, Application US/08460309 Patent No. 5837496
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Best Local Similarity
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LENGTH: 3110
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Best Local Similarity
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APPLICANT: Baak, Jan
TITLE OF INVENTION: Prognostic Classification of Breast Cancer
FILE REFERENCE: B0801/7224(JRV)
CURRENT APPLICATION NUMBER: US/09/917,254
CURRENT FILING DATE: 2001-07-27
PRIOR FILING DATE: 2000-07-28
PRIOR FILING DATE: 2000-07-28
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CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
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SOFTWARE: PatentIn version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 3
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Human
                                                                           APPLICANT: Engvall, Eva
APPLICANT: Leivo, Ilmo
TITLE OF INVENTION: Nucleic Acids Encoding Merosin, Merosin
TITLE OF INVENTION: Fragments and Uses Thereof
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                        389 NCETCT 394
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100.0%; Pred. No.
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100.0%; Pred. No. 83, 
tive 0; Mismatches
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Search completed: May 4, 2005, 14:37:24 
Job time : 23.0727 secs
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                                                                                                                                                              Matches
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APPLICATION NUMBER: US 08/125,077

FILING DATE: 22-SEP-1993

APPLICATION NUMBER: US PCT/US 94/10730

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/472,319

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/472,319

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/919,951

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PRIOR APPLICATION NUMBER: US 07/919,951

PRIOR APPLICATION NUMBER: US 07/919,951

REGISTRATION NUMBER: 31,815

REFERENCE/DOCKET NUMBER: P-LA 9721
                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (619) 535-8949 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 3111 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: (619) 535-9001
                                                                                                                                                              Local Similarity 100 hes 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                               389 NCETCT 394
                                                                                                                       6 NCETCT 11
                                                                                                                                                                                                                                                                                        amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            San Diego
California
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                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                               13.3%; Score 6; 1
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                                                                                                                                                              Mismatches
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Result
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Maximum DB
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seq length: 2000000000
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Match Length
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/cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US09_REW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US11_NEW_PUB.pep:*
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/cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB_pep:*
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    US-09-977-406A-91
US-09-977-406A-92
US-09-977-406A-10
US-09-977-406A-11
US-09-977-406A-11
US-09-977-406A-13
US-09-977-406A-14
US-09-977-406A-15
US-09-977-406A-16
US-09-977-406A-17
US-09-977-406A-17
US-09-977-406A-18
US-09-977-406A-18
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|--|---------------|----------------|------|----------------|----------------|-------------------|--------------|----------------|---------------|----------------|----------------|--------------|----------------|----------------|-------------|----------------|--------------|---------------|----------------|---------------|---------------|----------------|----------------|---------------|-------------------|---------------|-------------|-------------------|----------------|-------------------|
| 16<br>16                               | 16            | 16             | 16   | 16             | 16             | 16                | 16           | 16             | 16            | 16             | 16             | 16           | 16             | 16             | 16          | 16             | 16           | 16            | 16             | 16            | 16            | 16             | 16             | 16            | 16                | 16            | 16          | 16                | 16             | 16                |
| 35.6                                   | .5            | 5              | ū    | 5              | 'n             | <b>5</b>          | 5            | ŗ              | 5             | 5              | 5              | 5            | 5              | 5              | 5           | 5              | <u>ب</u>     | 5             | 5              | 5             | 5             | 5              | 5              | 5             | 5                 | 5             | 5           | 5                 | 5              | 5                 |
| 56<br>57                               | 55            | 54             | 53   | 52             | 51             | 50                | 49           | 48             | 47            | 46             | 45             | 44           | 43             | 42             | 41          | 40             | 39           | 38            | 37             | 36            | <b>υ</b>      | 34             | <b>3</b> 3     | 32            | 31                | 30            | 29          | 28                | 27             | 26                |
| 10                                     | 10            | 10             | 10   | 10             | 10             | 10                | 10           | 10             | 10            | 10             | 10             | 10           | 10             | 10             | 10          | 10             | 10           | 10            | 10             | 10            | 10            | 10             | 10             | 10            | 10                | 10            | 10          | 10                | 10             | 10                |
| US-09-977-406A-50<br>US-09-977-406A-51 | -09-977-406A- | -09-977-406A-4 | -09- | -09-977-406A-4 | -09-977-406A-4 | US-09-977-406A-44 | 9-977-406A-4 | -09-977-406A-4 | -09-977-406A- | -09-977-406A-4 | -09-977-406A-3 | 9-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | 9-977-406A- | -09-977-406A-3 | 9-977-406A-3 | -09-977-406A- | -09-977-406A-3 | -09-977-406A- | -09-977-406A- | -09-977-406A-2 | -09-977-406A-2 | -09-977-406A- | US-09-977-406A-25 | -09-977-406A- | 9-977-406A- | US-09-977-406A-22 | -09-977-406A-2 | US-09-977-406A-20 |
| equence                                | O             | equence        | æ    | equence        | æ              | æ                 | equence      | Φ              | equence       | O              | equence        | equence      | equence        | Φ              | æ           | equence        | equence      | equence       | ø              | ø             | O             | equence        | equence        | æ             | Œ                 | ው             | O           | Ø                 | equence        | Sequence 2        |
| 50,                                    | ,             | ,              | 7,   | 6              | •              |                   | 'n           | •              | 7,            | ,              | 9              | ъ,           | 37,            | 36,            | 35,         | 34,            | 'n           | 'n            | ŗ              | Ç             | 9             | θ,             | 7,             | ο,            | 'n                |               | Ÿ           | 22,               | 21,            | 20,               |
| Appl<br>Appl                           | Appl          | App1           | App1 | App1           | App1           | Appl              | Appl         | Appl           | App1          | Appl           | App1           | Appl         | Appl           | Appl           | App1        | App1           | App1         | App1          | App1           | App1          | App1          | App1           | App1           | App1          | App1              | Appl          | Appl        | Appl              | Appl           | Appl              |

## ALIGNMENTS

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Sequence 91, Application US/09977406A
Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: Patentin version 3.1
SEQ ID NO 91
LENGTH: 45
RESULT 2
US-09-977-406A-92
; Sequence 92, Application US/09977406A
                                                                                                                                             S
                                                                                                                                                                                                                                                                   ; FEATURE:
; OTHER INFORMATION: Polypeptide derived from PCK3145 sequence (polypeptide analog)
US-09-977-406A-91
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                                                                                                                                                                                      Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
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Pred. No.
                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                       3.9e-43;
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                                                                                                                                                                                                                          Length 45;
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US-09-977-406A-10
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                  Sequence 10, Application US/09977406A
Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
FILE REFERENCE: 06508-03-0US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 90, Application US/09977406A Publication No. US20030170220A1 GENERAL INFORMATION:
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CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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LENGTH: 60
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GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15 PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR FILING DATE: 2000-10-16 PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR FILING DATE: 2001-08-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
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PRIOR FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Polypeptide derived from PCK3145 sequence (polypeptide analog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: PROCYON BIOPHARMA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
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Pred. No.
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                    1.3e-26;
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                                                     AND METHODS FOR INHIBITING TUMORS
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SOFTWARE: SEQ ID NO 1

NUMBER OF SEQ ID NOS: 92 SOFTWARE: PatentIn version 3.1

CURRENT APPLICATION NUMBER: US/99/977,406A CURRENT FILING DATE: 2001-10-15 PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR FILING DATE: 2000-10-16 PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR FILING DATE: 2001-08-20

APPLICANT: PROCYON BIOPHARMA INC.

TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS FILE REFERENCE: 06508-030-US-03

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Sequence 12, Application US/09977406A Publication No. US20030170220A1 GENERAL INFORMATION:
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Best Local S
Matches 16
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR APPLICATION PRIOR CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF TE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: 06508-030-US-03
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PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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ORGANISM: Artificial Sequence
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US-09-977-406A-14
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                                                                                      SOFTWARE: PatentIn version 3.1
SEQ ID NO 14
LENGTH: 20
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Publication No. US20030170220A1
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Best Local :
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Best Local
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OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
-09-977-406A-14
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR PILING DATE: 2000-10-16
PRIOR PILING DATE: CA 2,355,334
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR PILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
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PRIOR PILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
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                                     TYPE: PRT
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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SEQ ID NO 16
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Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
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SEQ ID NO 15
LENGTH: 21
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                                                                                                                                                                                                                                                                                        PRIOR FILING DATE:
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
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100.0%; Pred. No. 3.:
tive 0; Mismatches
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RESULT 13
US-09-977-406A-19
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US-09-977-406A-17
GENERAL INFORMATION:
           Sequence 19, Application US/09977406A Publication No. US20030170220A1
                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn version 3.1
SEQ ID NO 18
LENGTH: 24
TYPE: PRT
                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 18, Application US/09977406A
Publication No. US20030170220A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
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Best Local Similarity
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LENGTH: 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: CA 2,321,256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-977-406A-18
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PRIOR TILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS
FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
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Pred. No.
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RESULT 15
US-09-977-406A-21
; Sequence 21, Application US/09977406A
; Publication No. US20030170220A1
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; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
US-09-977-406A-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; FEATURE:
; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
US-09-977-406A-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
US-09-977-406A-20
GENERAL INFORMATION:

APPLICANT: PROCYON BIOPHARMA INC.

TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS

FILE REFERENCE: 06508-030-US-03

CURRENT PLILING DATE: 2001-10-15

PRIOR APPLICATION NUMBER: CA 2,321,256
                                                                                                                                                                                                                                                                                                               Matches
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PRIOR FILING DATE: 2000-10-16
PRIOR PPLICATION NUMBER: CA 2,321,256
PRIOR PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
SOFTWARE: Datasets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION
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SEQ ID NO 19
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CURRENT APPLICATION NUMBER: US/09/977,406A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: CA 2,321,256 PRIOR FILING DATE: 2000-10-16
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CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
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ORGANISM: Artificial Sequence
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; PRIOR APPLICATION NUMBER: CA 2,355,334
; PRIOR FILING DATE: 2001-08-20
; NUMBER OF SEQ ID NOS: 92
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 21
; LENGTH: 27
; TYPE: PRT
; ORGANISM: Artificial Sequence
; PEATURE:
; OTHER INFORMATION: Polypeptide derived from rhupSP94 sequence (polypeptide analog)
US-09-977-406A-21

Query Match
Best Local Similarity 100.0%; Pred. No. 4.5e-11;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 EWQTDNCETCTCYETE 16

QY 1 EWQTDNCETCTCYETE 16
Db 1 EWQTDNCETCTCYETE 16
Search completed: May 4, 2005, 15:24:09
Job time: 51.2364 secs
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Copyright GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd

OM protein - protein search, using sw model

Run on: мау 4, 2005, 14:12:38 ; Search time 16.2 Seconds (without alignments)
267.269 Million cell updates/sec

Title: Perfect score: US-09-977-406A-91 45

Scoring table: Sequence: OLIGO EWQTDNCETCTCYETEWQTD... .....TCYETEWQTDNCETCTCYET

Gapop 60.0 , Gapext 60.0

Searched: 283416 seqs, 96216763 residues

Word size :

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq Maximum DB seq length: 0 length: 2000000000

Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

| Result No. 2 2 3 3 4 4 5 5 6 7 7 1 1 2 1 1 2 1 1 2 1 1 3 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 3 1 1 3 1 | , sc or 10 c or 0 c or | Query<br>Match<br>13.3<br>13.3<br>13.3<br>13.3<br>13.3<br>11.1<br>11.1<br>11. | Length     | B   | ID A34567 JC7094 B96744 T32374 A29840 JW0613 S27216 S53116 S52089 A54663 S73864 E69429 G65019 |
|--|---|---|------------|-----|---|
| ωa   | თთ  |   | 601<br>895 | N N | B96744<br>T32374  |
| ហ  | ტ   |   | 2          | N   | A29840  |
| σ  | ŋ   |   | 38         | N   | JN0613  |
| 7  | ű   | 11.1  | 38         | N   | S27242  |
| 89   | <sub>5</sub>  | 11.1  | 83         | N   | S53116  |
| 9  | ហ   | 11.1  | 91         | N   | S52089  |
| 10   | 5   | 11.1  | 114        | N   | A54663  |
| 11   | 5   | 11.1  | 119        | ۳   | S73864  |
| 12   | י טי  | 11.1  | 127        | , N | E69429  |
| 14   | UT I  | 11.1  | 155        | N   | F81108  |
| 15   | ហ   | 11.1  | 167        | N   | C86241  |
| 16   | ហ   | 11.1  | 210        | N   | AC2316  |
| 17   | υī  | 11.1  | 226        | N   | C70962  |
| 18   | 5   | 11.1  | 246        | N   | A81679  |
| 19   | · UT  | 11.1  | 256        | N   | T05554  |
| 2 2  | лU  | 11:   | 281        | ٥ ٨ | F96718  |
| 22   | 5   | 11.1  | 295        | N   | S76790  |
| 23   | ហ   | 11.1  | 301        | N   | T26546  |
| 24   | ر<br>د  | 11.1  | 315        | 2   | S66038  |
| 25   | ŋ   | 11.1  | 317        | N   | C83652  |
| 26   | Uī  | 11.1  | 319        | ь   | I50370  |
| 27   | ຫ   | 11.1  | 322        | N   | C70905  |
| 28   | <sub>5</sub>  | 11.1  | 334        | N   | D82803  |
| 29   | ر.<br>د   | 11.1  | 339        | N   | T16273  |
|  |   |   |            |     |   |

| 45                 | 44                 | 43                 | 42                 | 41                 | 40                 | 39                | 38                 | 37                 | 36                 | 35                 | 34                 | 33<br>3            | 32                | 31                | 30                 |
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| 390                | 385                | 374                | 374                | 366                | 363                | 361               | 360                | 360                | 359                | 358                | 358                | 349                | 347               | 347               | 340                |
| N                  | N                  | N                  | N                  | N                  | Ь                  | N                 | 2                  | ٦                  | _                  | Ь                  | مو                 | _                  | N                 | N                 | ᆫ                  |
| \$46540            | G83817             | C97058             | S41758             | 866351             | C55973             | I50505            | T06592             | A55198             | I51734             | I51735             | A55973             | I50369             | A38453            | AC0825            | B55973             |
| methionine adenosy | coproporphyrinogen | molecular chaperon | heat shock protein | methionine adenosy | transcription fact | gene wnt8 protein | methionine adenosy | transcription fact | anaerobic sulfite | anaerobic sulfite | transcription fact |

### ALIGNMENTS

| 4 | RESULT |
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beta-microseminoprotein precursor - human N;Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma Species: Homo sapiens (man);Date: 13-Jul-1990 #text\_change 09-Jul-2004;Date: 13-Jul-1990 #sequence\_revision 13-Jul-1990 #text\_change 09-Jul-2004;Accession: A34567; A26451; A29777; A30984; A60673; S16238; I52682 prot

R;Green, C.B.; Liu, W.Y.; Kwok, S.C.M.
Biochem. Biophys. Res. Commun. 167, 1184-1190, 1990
A;Title: Cloning and nucleotide sequence analysis of the human beta-microseminoprotein generates and particles of the human beta-microseminoprotein generates also and particles and particles and particles and particles are also as a particles are also an are also as a particles are also as a partic

Status: not compared with conceptual translation;

Molecule type: DNA

A;Cross-references: UNIPROT:PO8118; GB:M34376; NID:g514370; PIDN:AAA59871.1; PID:g514372 R;Mbikay, M.; Nolet, S.; Fournier, S.; Benjannet, S.; Chapdelaine, P.; Paradis, G.; Dube, DNA 6, 23-29, 1987 A;Residues: 1-114 <GRE> plasma

Title: Molecular cloning and sequence of the cDNA for a 94-amino-acid seminal; Reference number: A26451; MUID:87161231; PMID:3829888 Accession: A26451

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;Molecule type: mRNA

ጓ;Residues: 1-114 <MBI>

A;Cross-references: GB:M15885; NID:g338414; PIDN:AAA36635.1; PID:g338415 R;AkAyama, K.; Yoshioka, Y.; Schmid, K.; Offner, G.D.; Troxler, R.F.; Tsuda, Biochim. Biophys. Acta 829, 288-294, 1985 A;Title: The amino acid sequence of human beta-microseminoprotein. A;Reference number: A29777; MUID:85199974; PMID:3995056 R.; Hara, M

Accession: A29777

A; Residues: 21-58, 'PT', 61-113 < AKI>

R;Seidah, N.G.; Arbatti, N.J.; Rochemont, J.; Sheth, A.R.; Chretien, M. FBBS Lett. 175, 349-355, 1984
A;Title: Complete amino acid sequence of human seminal plasma beta-inhibin.
A;Reference number: A30984; MUID:85004133; PMID:6434350

Prediction of

;Accession: A30984

A;Molecule type: protein
A;Residues: 21-112, 'G', 114 <SEI>
A;Residues: 21-112, 'G', 114 <SEI>
R;Weiber, H.; Andersson, C.; Murne, A.; Rannevik, G.; Lindstroem, C.; Lilja, H.; Fernlunc
R;Weiber, H.; Andersson, C.; Murne, A.; Rannevik, G.; Lindstroem, C.; Lilja, H.; Fernlunc
Am. J. Pathol. 137, 593-604, 1990
A;Title: Beta microseminoprotein is not a prostate-specific protein.
A;Reference number: A60673; MUID:90379237; PMID:2205099

Accession: A60673

A; Molecule type: protein
A; Residues: 21, 'X', 23-34 <WEI>

A;Experimental source: gastric juice R;Nolet, S.; Mbikay, M.; Chretien, M. Biochim. Biophys. Acta 1089, 247-249, 1991
A;Title: Prostatic secretory protein PSP(94): gene organization and A;Reference number: S16237; MUID:91274357; PMID:2054385 promoter sequence in

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A;Uross-references: EMBL:X57928; NID:g35760; PIDN:CAA41002.1; PID:g825707 A;Note: the authors translated the codon ACT for residue 54 as Trp R;Liu, A.Y.; Bradner, R.C.; Vessella, R.L. Cancer Lett. 74, 91-99, 1993
A;Title: Decreased expression of prostatic secretory protein PSP94 in pros A;Reference number: I52682; MUID:94115955; PMID:7506990
A;Recession: I52682
                                                                unknown protein [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 C;Accession: B96744 R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspie Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Cansen, N.F.; Hughes, B.; Hulzar, L.

Nature 408, 816-820, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Saraiva, L.M.; da Costa, P.N.; LeGall, J. Biochem. Biophys. Res. Commun. 262, 629-634, 1999 A;Title: Sequencing the gene encoding Desulfovibrio desulfuricans A;Reference number: JC7094; MUID:99400423; PMID:10471375 A;Accession: JC7094
  A; Authors: Hunter, J.L.; Jenkins, J.; Johr C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X. Rizzo, M.; Rooney, T.; Rowley, D.; Sakano,
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A;Map position: 10q11.2-10q11.2
A;Introns: 1/3; 37/1; 72/2
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A;Cross-references: GB:S67815; NID:g460568; PIDN:AAB29732.1; PID:g460569
C;Comment: This protein is a component of seminal plasma as well as secr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Species: Desulfovibrio desulturicans;Date: 03-Dec-1999 #text_change;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change
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                                                                                                           C.J.; Federspiel,
Conway, A.B.; Conv
                         Johnson-Hopson, (S.X.; Liu, Z.A.;
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Creasy, T.H.;
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A;Cross-references: UNIPROT:P09489; GB:M13469; G;Superfamily: autotransporter subtilisin-like C;Keywords: hydrolase; serine proteinase F;1-27/Domain: signal sequence #status predicte F;28-408/Product: serine proteinase #status pre
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A29840
                                                                                                                                                                             R;Yanagida, N.; Uozumi, T.; Beppu, T.
J. Bacteriol. 166, 937-944, 1986
A;Title: Specific excretion of Serratia marcescens protease
A;Reference number: A29840; MUID:86223815; PMID:3011754
                                                                                                             A; Molecule type: DNA
A; Residues: 1-1045 < YAN>
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                                                                                                                                                                                                                                                                  serine proteinase (EC 3.4.21.-) precursor - Serratia marcescens (strain IFO-3046) (;Species: Serratia marcescens (C;Date: 19-May-1989 #sequence_revision 19-May-1989 #text_change 09-Jul-2004 (;Accession: A29840
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A; MOLECULA: "LF"
A; Residues: 1-895 < WOH>
A; Cross-references: EMBL: AF025462; PID
A; Cross-references: Etrain Bristol
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C;Superfamily: yeast 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase; 1-phosphosphodiesterase domain Y homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Wohldmann, P.; Beck, C.
R;Wohldmann, P.; Beck, C.
submitted to the EMBL Data Library, September 1997
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A;Accession: B96744
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypothetical protein K10F12.3 - C:
C;Species: Caenorhabditis elegans
                                                                                                                                                                    F;338-487/Domain: 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase domain X
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                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
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6; Conserv
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tol N2; clone K10F12
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#status predicted

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predicted <SIG>

NID:g152857; PIDN:AAA26572.1; protease precursor; subtilisin

PID:g152858 n homology

through

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outer membrane

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methionine adenosyltransferase (EC 2.5.1.6) - chickpea N;Alternate names: S-adenosylmethionine synthetase C;Species: Cicer arietinum (chickpea, garbanzo) C;Date: 08-Jul-1995 #sequence_revision 21-Jul-1995 #tex C;Accession: S53116
                                                                                                                                       RESULT 8
S53116
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S27242
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C/Species: Leiurus quinquestriatus hebraeus
C/Species: Loive quinquestriatus hebraeus
C/Species: Loive quinquestriatus hebraeus
C/Accession: JN0613
R/Cociancich, S.; Goyffon, M.; Bontems, F.; Bulet, P.; Bouet, F.; Menez, A.; Hoffmann, Carlochem. Biophys. Res. Commun. 194, 17-22, 1993
Biochem. Biophys. Res. Commun. 194, 17-22, 1993
A/Title: Purification and characterization of a scorpion defensin, a 4kDa antibacterial
A/Reference number: JN0613; MUID:93326112; PMID:8333834
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Eur. J. Biochem. 209, 977-984, 1992
A;Title: A novel insect defensin mediates the inducible antibacterial activity in larvae
A;Reference number: S27242; MUID:93049356; PMID:1425705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    defensin - blue darner

G:Species: Aeschna cyanea (blue darner)

C:Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004

C:Accession: $27242
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A;Molecule type: protein
A;Residues: 1-38 <BUL>
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N;Alternate names: antibacterial 4K peptide
C;Species: Leiurus quinquestriatus hebraeus
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 09-Jul-2004
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F;409-1045/Domain: carboxyl-terminal propel
F;76,112,341/Active site: Asp, His, Ser #s
  R; Cervantes, submitted to
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                                                         #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                    Length 38;
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seminal plasma protein PSP-94 precursor - rhesus macaque
N,Alternate names: prostatic secretory protein PSP94
C;Species: Macaca mulatta (rhesus macaque)
C;Date: 02-Unn-1995 #sequence revision 02-Unn-1995 #text_change 09-Jul-2004
C;Accession: S16237; A54663
R;Nolet: S.; Mbikay, M.; Chretien, M.
Biochim. Biophys. Acta 1089, 247-249, 1991
A;Title: Prostatic secretory protein PSP(94): gene organization and promote:
A;Reference number: S16237; MUID:91274357; PMID:2054385
                                                          A,Cross-references: UNIPROT:P25142; EMBL:X57932; NID:g38094; PIDN:CAA41003.1; PID:g82915; A;Note: the authors translated the codon ACT for residue 54 as Trp R;Notet, S.; St-Louis, D.; Mbikay, M.; Chretien, M. Genomics 9, 775-777, 1991
A;Title: Rapid evolution of prostatic protein PSP-94 suggested by sequence divergence bet A;Reference number: A54663; MUID:91244325; PMID:2037304
A;Accession: A54663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Superfamily: transcription factor isl-1; homeobox homology; LIM C;Keywords: alternative splicing; DNA binding; homeobox; nucleus; F;3-56/Domain: LIM metal-binding repeat homology <LIM>
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S52089
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A;Residues: 1-83 <CEFA
A;Cross-references: UNIPROT:Q39465; EMBL:X85252; NID:g1808591; PIDN:CAA59508.1; PID:g732
C;Superfamily: methionine adenosyltransferase
C;Keywords: S-adenosylmethionine; transferase
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Biochim. Biophys. Acta 1260, 349-354, 1995
Biochim. Biophys. Acta 1260, 349-354, 1995
A;Title: Several splicing variants of isl-1 like genes in A;Reference number: S52089; MUID:95178560; PMID:7873614
A;Accession: S52089
                    A; Molecule type: mRNA
A; Residues: 1-114 < NO
                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-114 < NO2>
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A;Experimental source: clone S3
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A; Accession: S53116
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GB:M92161; NID:g342280; PIDN:AAA36903.1; PID:g342281
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Fleischmann, R.D.; Quackenbush, J.F.; White, O.; Nelson, K.E.; Ketchum, K.A.; Dc.; Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald, L. Nature 390, 364-370, 1997
A;Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing arch A;Accession: E69429
A;Accession: E69429
A;Accession: E69429
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C; Superfamily: 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Noctherical protein H10 orf119 - Mycoplasma pneumoniae (strain ATCC);Species: Mycoplasma pneumoniae;Species: Mycoplasma pneumoniae;Species: Mycoplasma pneumoniae;Species: MyCC 29342
Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jupate: 10-Sep-1999 #sequence_revision 10-Sep-1999 #sext_change 09-Jupate: 10-Sep-1999 #sequence_revision 10-Sep-1999 #sext_change 09-Jupate: 10-Sep-1999 #sex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Accession: S73864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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                                                                                                                                                                                                                   Local Similarity
les 5; Conserv
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                                                                                      16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 5; Conserva
                                                                                   CYETE
                                                                                                                                                    CYETE 16
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100.0%; Pr
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                                                                                                                                                                                                                                                  Score 5;
Pred. No
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL:AE000052; GB:U00089; NID:g1674223; PIDN:AAB9618 submitted to the EMBL Data Library, November 1996
                                                                                                                                                                                                                   Mismatches
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o. 47;
                                                                                                                                                                                                                                              DB 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                             shown; translation
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                                                                                                                                                                                                                                                                          Length 127
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                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P.; Kaine, B.P.; Sykes, S
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                                                                                             C;Accession: C86241
R;Theologis, A.; Ecker, J.R.; Palm,
Chin, C.W.; Chung, M.K.; Conn, L.;
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J. Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
                                                                                                                                                                                                                                                         protein T16B5.9 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001
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A; Gene: NMB1210
C; Superfamily:
                                                                                                                                                                                                                                                                                         A;Title: Complete genome sequence of Neisseria meningitidis serogroup B A;Reference number: A81000; MUID:20175755; PMID:10710307 A;Accession: F81108
                                                                                                                                                                                                                                                                                                                                                                                       R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B. ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    toxin-activating protein, probable NMB1210 [imported] - Neisseria meningitidis C;Specia: Neisseria meningitidis C;Specia: Naisseria meningitidis C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004 C;Accession: FB1108
                                                                                                                                                                                                    A;Cross-references: UNIPROT:Q9JZBO; A;Experimental source: serogroup B;
                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-155 < TET>
                                                                                                                                                                                                                                                                                                                                                                         ri, H.; Qin, H.; Vamathevan,
Science 287, 1809-1815, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: UNIPROT:P76548; GB:AE000332; GB:U00096; NID:g1788789; PIDN:AAC75501.1
A;Experimental source: strain K-12, substrain MG1655
C;Superfamily: Escherichia coli hypothetical protein b2448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A.; KOBE, ..., A.23-1462, 1997
Science 277, 1453-1462, 1997
A;Title: The complete genome sequence of Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: G65019
R;Blattner, F.R.; Plunkett
A.; Rose, D.J.; Mau, B.;
                                                                                                                                                                                                                                                                                 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Escherichia coli
C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical protein b2448 - C; Species: Escherichia coli
                                                                         Matches
                                                                                                           Query Match
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Best Local
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                                                                                                                                                                    NMB1210
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80
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                                                                     Similarity
5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1:130 <BLAT>
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5; Conserv
ETEWO
                                 ETEWO 18
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                                                                     Conservative 0;
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84
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100.0%; Pr
.... 0;
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                                                                   %; Score 5; DB 2
%; Pred. No. 59;
0; Mismatches
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Pred. No.
                                                                                                                                                                                                      GB:AE002469;
strain MC58
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59;
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                                                                                                                                                                                                                      GB:AE002098; NID:g7226446; PIDN:AAF41592
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J.A.

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Conway, C.J.;

Federspiel, N.A.; y, A.B.; Conway, A.

Kaul,

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Creasy,

White,

O.; Alonso, ; Dewar, K.;

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Khaykin, E.; Maiti, R.; M

.; Kim, C. Marziali,

#text\_change 09-Jul-2004

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A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, Ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A;Reference number: A86141; MUID:21016719; PMID:11130712

A;Reference number: DNA

A;Residue: preliminary

A;Molecule type: DNA

A;Residues: 1-167 <STO>

A;Cross-references: UNIFROT:Q9SAC5; GB:AE005172; NID:g4874271; PIDN:AAD31336.1; GSPDB:GN C;Genetics:

C;Genetics:
A;Gene: T1685.9

A;Map position: 1

Query Match
Best Local Similarity 100.0%; Pred. No. 63;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Query Match
Best Local Similarity 100.0%; Pred. No. 63;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 11 TCYET 15
Qb 91 TCYET 95

Search completed: May 4, 2005, 14:34:57

Job time: 16.2 secs
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Result
No.
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB seq length: 0
DB seq length: 2000000000
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     Query
Match
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Gapop 60.0 , Gapext 60.0
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1: uniprot_sprot:*
2: uniprot_trembl:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-977-406A-91
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Copyright (c) 1993 - 2005 Compugen Ltd.
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 O7OZU9
Q7OH34
Q9J5A0
LMA2_HUMAN
DEF4_ANDAU
DEF4_LEIQH
DEF1_AESCY
Q7Y3N1
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Q8C1L6
Q6VY76
Q39465
Q39465
Q8BU77
Q42169
Q9JH97
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Q6R5C3
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Q8IA75
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028767
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# ALIGNMENTS

| RP SEQUENCE FROM N.A RC TISSUE=Prostate; RX MEDLINE=94115955; RA Liu A.Y., Bradner RT "Decreased expres RT cancer.";  |  |  | SEQUENCE FROM N.J SEQUENCE FROM N.J MEDLINE=87161231 Mbikay M., Nolet Paradis G., Dube Chretten M.; "Molecular clonis seminal plasma pp DNA 6:23-29(1987) [2] ENGE FROM N.J SEQUENCE FROM N.S MEDLINE=91274357 Nolet S., Mbikay | BW<br>TOS   |
|---|--|--|---|---|
| OM N.A.<br>itate;<br>15955; PubMed=7506990; DOI=10.1016/0304-3835(93)90049<br>iradner R.C., Vessella R.L.;<br>expression of prostatic secretory protein PSP94 in pr | SEQUENCE FROM N.A.  MEDLINE=90073664; PubMed=2590204;  MIDLINE=90073664; PubMed=2590204;  MIDLINE=90073664; PubMed=2590204;  MIDLINE=90073664; PubMed=2590204;  MIDLINE=90073664; PubMed=2590204;  MIDLINE=9007064; Meiber H., Abrahamsson PA., L.  MIDLINE=90073664; PubMed=2590204;  MIDLINE=90073664; Pub | in PSP94: gene organization and human."; 9:247-249(1991). 322265; S.C.M.; guence analysis of the human | ed=3829888;  ournier S., Benjannet S., Chapd Tremblay R., Lazure C., Seidah sequence of the cDNA for a 94-secreted by the human prostate ed=2054385; DOI=10.1016/0167-47 hretien M.;  | PRT; 114 AA.  ated)  t sequence update) t annotation update) trecursor (Prostate secreted ory protein PSP94) (PSP-94) ulin binding factor) (IGBF) ular; Craniata; Vertebrata; tes; Catarrhini; Hominidae; |
| 93)90049- <i>F;</i>   | , Lilja H.,<br>beta-<br>ction of   | and promoter   | aine P.,<br>.G.,<br>ino-acid<br>;<br>(91)90016-F;   | seminal plasma<br>(Seminal plasma<br>(PN44).<br>Euteleostomi;   |

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"Prostate specific protein
cell line (KLE).";
                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=85004133; PubMed=6434350;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=99421644; PubMed=10491085;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=22388257;
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Xuan J.W., Chin J.L., Guo Y., Chambers A.F.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'amino acid so
him. Biophys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R., Hara M.;
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Feingold E.A., Grouse L.
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                                                                               TISSUE SPECIFICITY
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                                                                                                                             inal plasma.";
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ouse L.H., Derge J.G.,
r L., Shenmen C.M., Schuler (
K.H., Schaefer C.F., Bhat N.
                                                                                                                                                              binding factor sma.";
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Pfam; PF05825; PSP94;
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PIR; G01730; G01730.
Genew; HGNC:7372; MS
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Proteomics 2:112-120(2002).
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DOI-10.1002/1615-9861(200201)2:1<112::AID-PROT112>3.3.CO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Human seminal plasma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tube. PSP94 is found in kidney MISCELLANEOUS:
                                                                                                                                            GO:0005615; C:extracellular
GO:0005634; C:nucleus; TAS.
erPro; IPR008735; PSP94.
                                                                                                                                                                                                                                                                                                                                                                                                                                         European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MISCELLANEOUS: Specific receptors for this protein are to spermatozoa and in the prostate. SIMILARITY: Belongs to the beta-microseminoprotein family CAUTION: Was originally thought to inhibit the secretion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pituitary cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE SPECIFICITY: Strongly expr
breast and penis. Also expressed
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                                                                                                                                                                                                                                                                                                                 M34374; AAA59871.1;
M34375; AAA59871.1;
M15885; AAA36635.1;
X57928; CAA41002.1;
X57929; CAA41002.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=PSP57
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M34373;
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U22178; AAA83556.
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                                                                                                                                                                                                                                       AJ133356;
                                                                                                                                                                                                                                                                                             X57930; CAA41002.
X57931; CAA41002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E SPECIFICITY: Strongly expressed in prostate, liver, king and penis. Also expressed in pancreas, esophagus, stomenum, colon, trachea, lung, salivary glands and fallopian pSS94 is expressed in lung and breast, whereas PSP57 is in kidney and bladder.
                                                                                                                                                                                                                                                                                                                                                                                                           email to
                                                                                                                        splicing;
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                                                                                                                        Direct
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immunohistochemical localization.";
Biol. 27:603-611(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence=VSP_003275,
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                              Beta-microseminoprotein.

By similarity.

By similarity.

Or C-60 with C-70 (By similarity).

Or C-62 with C-69 (By similarity).

By similarity.

EXCMDLKGNKHPINSEWQTDNCETCTCYETBISCCTLVSTPV
-> MPLHLWVMTKTTAKESSRRRTASISWWRRRTQKRPVLS
VNG (in isoform PSP57).
/FTId=VSP_003275.
                                                                                                                        protein sequencing; Polymorphism; Signal.
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MSMB_PAPAN
Q28767;
01-NOV-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Molecular cloning and gene expression analysis of PSP94 secretory protein of 94 amino acids) in primates."; DNA Cell Biol. 16:627-638(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Beta-microseminoprotein precursor (Prostate secreted seminal plasma protein) (Prostate secretory protein PSP94) (PSP-94).
Name=MSMMP. Surceima-neons.
                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
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MEDLINE=97316893; PubMed=9174167;
Garde S
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Papio anubis (Olive baboon).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1997 (Rel. 35,
01-NOV-1997 (Rel. 35,
05-JUL-2004 (Rel. 44,
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Beta-microseminoprotein.
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Or C-62 with C-69 (By sim.)
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/FTId=VSP_003276.
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  STRAIN-CSTRL/GJ; TISSUE=Pancreas;

STRAIN-CSTRL/GJ; TISSUE=Pancreas;

Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,

Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno

Hanagaki T., Hara A., Hayateu N., Hiramoto K., Hiraoka T., Hori F.

Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,

Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki Sogabe Y., Suzuki H., Tagama M., Tagawa A., Takahashi F., Tanaka T Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshiraki Y., Muramatsu M., Hayashizaki Y.,
                                                                                                                                                                                                                                                                                                                                           MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600; Shibata K., Itoh M., Alzawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Komo H., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shiba Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y., "Normalization and subtraction of cap-trapper-selected prepare full-length cDNA libraries for rapid discovery Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-C57BL/6J; TISSUE-Pancreas;
STRAIN-C57BL/6J; TISSUE-Pancreas;
MEDLINE-20499374; PubMed=11042159; DOI=10.1101/gr.145100;
MEDLINE-20499374; PubMed=11042150; Sugahara Y., Shibata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
25-OCT-2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Lanctation update)
Mus musculus 10 day old male pancreas cDNA, RIKEN full-length (library, clome:1810020801 product:hypothetical protein, full is sequence (RIKEN cDNA 1810020E01).
Name=1810020E01R.k;
SEQUENCE FROM N.
                                      Submitted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=99279253; PubMed=10349636; DOI=10.10 Carninci P., Hayashizaki Y.; "High-efficiency Full-length cDNA cloning."; Meth. Enzymol. 303:19-44(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=C57BL/6J; TISSUE=Pancreas; MEDLINE=21085660; PubMed=11217851; RIKEN FANTOM Consortium;
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STRAIN=C57BL/6J; TISSUE=Pancreas;
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                                        to the
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                                        EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOI=10.1016/S0076-6879(99)03004-9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Euteleostomi;
; Murinae; Mus.
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K. Klausner R.D., Colline F.S., Wagner L., Schenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heideh F.,

A Hopkins R.F., Jordan H., Moore T., Rubin G.M., Hong L.,

Biatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Casavant T.L., Scheetz T.E.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Stapleton M., J. Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Stapleton M., J. Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Usdin T.B., Poters G.J., Abramson R.D., Mullahy S.J.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Blosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Mozny B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

Jones S. J. Marra M.A.
                         Complete
SEQUENCE
                                                                                                                                                                 SEQUENCE FROM N.A.

MEDLINE=22825698; PubMed=12917642; DOI=10.1038/nature01947;

ROCAP G., Larimer F.W., Lamerdin J.E., Malfatti S., Chain P.,

Anlgren N.A., Arellano A., Coleman M., Hauser L., Hess W.R.,

Johnson Z.I., Land M.L., Lindell D., Post A.F., Regala W., Shah M.,

Shaw S.L., Steglich C., Sullivan M.B., Ting C.S., Tolonen A.,

Webb E.A., Zinser E.R., Chisholm S.W.;

"Genome divergence in two Prochlorococcus ecotypes reflects oceanic niche differentiation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q7V5F4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-OCT-2003 (TrEMBLrel. 25, 01-OCT-2003 (TrEMBLrel. 25, 01-OCT-2003 (TrEMBLrel. 25,
                                                                                                           Nature 424:1042-1047(2003).
EMBL; BX572099; CAE21782.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacterial regulatory proteins, AsnC OrderedLocusNames=PMT1607;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AK007559; BABZ5107.1; -.
EMBL; BC023171; AAH23171.1; -.
EMBL; BC023171; AAH23171.1; -.
MGD; MGI:1913521; 1810020801Rik.
GO; GO:0016021; C:integral to membrane;
InterPro; IPR009801; DUF1370.
                                                                     InterPro; IPR009058; Wing_hlx_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prochlorococcus marinus (strain MIT 9313).
Bacteria; Cyanobacteria; Prochlorales; Prochlorococcaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hypothetical protein. SEQUENCE 196 AA; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=74547;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted
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STRAIN=FVB/N; TISSUE=Mammary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=22388257;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PF07114, DUF1370; 1.
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l. Acad. Sci. U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (FEB-2002) to the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=12477932; DOI=10.1073/pnas.242603899;
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100.0%; Pr
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                   MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update Last annotation update
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 6; DB 2
Pred. No. 25;
D; Mismatches
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                   E663AA68A216D0C5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        994DF5E2251C5FEB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    family.
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5. 25;
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J.E.,
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RESULT 5
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ID CYC9_D
AC Q9RN68
AC Q9RN68
DT 16-OCT
DT 16-OCT
DT Nine-h
OS Desulf.
OC Bacter
OC Desulf.
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RN SEQUEN
RC STRAIN
RX MEDLIN
RX ME
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Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "The primary and three-dimensional structures of a cytochrome c from Desulfovibrio desulfuricans ATCC member of the Hmc family, Structure 7:119-130(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matias P.M., Coelho R., Pereira I.A., Sieker L., LeGall J., Carrondo M.A.,
                                                                       EMBL; AF186393; AAD56586.1;
                                                                                                                                                                    use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                between the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=ATCC 27774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   primary sequence determination, crystallographic refinement at 1.8 A and modelling studies of its interaction with the tetrahaem cytochrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nine-heme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bacteria; Proteobacteria; Deltaproteobacteria; Desulfovibrionales; Desulfovibrionaceae; Desulfovibrio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nine-heme cytochrome c precursor (9Hcc)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-OCT-2001 (Rel. 40, 16-OCT-2001 (Rel. 40, 25-OCT-2004 (Rel. 45,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9RN68;
16-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=99148120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        X-RAY CRYSTALLOGRAPHY (1.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matias P.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Saraiva L.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Desulfovibrio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Nine-haem cytochrome c from Desulfovibrio desulfuricans ATCC 27774:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=20022508;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=99400423;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'Sequencing the gene encoding
                                                                                                                       tities requires a license agreement (S send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Biol. Inorg. Chem.
                                                                                                                                                                                                                  s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EM European Bioinformatics Institute. There are no restr
                                                                                                                                                                                                                                                                                                                  DOMAIN: Arranged into two tetraheme cl
is located asymmetrically between the
prm: Binds 9 heme groups per subunit.
SIMILARITY: Contains 9 cytochrome c do
                                                                                                                                                                                                                                                                                                                                                                                                                                            sulfate.
SUBUNIT: Monomer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: May form part of a transmembrane redox which electrons are transferred to the cytoplasm
                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: Periplasmic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DESDE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cytochrome c.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              desulfuricans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=10368280; DOI=10.1016/S0969-2126(99)80019-7; ho R., Pereira I.A.C., Coelho A.V., Thompson A.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=10471375; DOI=10.1006/bbrc.1999.1238;
Costa P.N., LeGall J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=10555582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13.3%;
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Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Commun.
                                                                                                                                                                                                                                                                                                                  cytochrome c domains.
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as its content
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                                                                                                                                           . Usage by and for commercial http://www.isb-sib.ch/announce/
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; JC7094; JC709; ; 19HC; X-ray; ! ; 10FW; X-ray; !

JC7094

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InterPro; IPRO0345; CytC heme_BS.
InterPro; IPRO102322; Cyt_CIII.
InterPro; IPRO11031; Multihaem_cyt.
Pfam; PF02085; Cytochrom_CIII; 1.
PRIMTS; PR06699; CYTOCHROMEC3.
PROSITE; PSS1008; MULTIHEME_CYTO; 1.
3D-structure; Electron_transport; Hen
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n (heme 7 axial ligand).
n (heme 9 axial ligand).
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(heme 6 axial ligand).
(heme 8 axial ligand).
(heme 4 axial ligand).
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(heme 7
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3 (covalent).
(heme 3 axial ligand)
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6 (covalent)
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Matches 6
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STRAIN-NCIMB 8826 / WCFS1;

MEDLINE=22480296; PubMed=12566566; DOI=10.1073/pnas.0337704100;

Kleerebezem M., Boekhorst J., van Kranenburg R., Molenaar D.,

Klieere O.P., Leer R., Tarchini R., Peters S.A., Sandbrink H.M.,

Fiers M.W.E.J., Stiekema W., Klein Lankhorst R.M., Bron P.A.,

Hoffer S.M., Nierop Groot M.N., Kerkhoven R., De Vries M., Ursing

De Vos W.M., Siezen R.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MURD LAG
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                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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29-MAR-2004 (Rel. 43, Last sequence update)
05-JUD-N-2004 (Rel. 44, Last annotation update)
UDP-N-acetylmuramoylalanine--D-glutamate ligase
acetylmuramoyl-L-alanyl-D-glutamate synthetase)
adding enzyme).
                                                                                                                                                                                                                                                                                                                                                                                    "Complete genome sequence of Lactobacillus plantarum WCFS1.";

Proc. Natl. Acad. Sci. U.S.A. 100:1990-1995(2003).

-!- FUNCTION: Cell wall formation. Catalyzes the addition of glutamate to the nucleotide precursor UDP-N-acetylmuramoyl-L-alanine (UMA)

(By similarity).

-!- CATALYTIC ACTIVITY: ATP + UDP-N-acetylmuramoyl-L-alanine + glutamate = ADP + phosphate + UDP-N-acetylmuramoyl-L-alanyl-D-glutamate.

-!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=1590;
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Lactobacillus.
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                                                                                                                                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: Cytoplasmic (By similarity). SIMILARITY: Belongs to the murCDEF family.
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(D-glutamic acid
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EMBL; AL935258; CAD64544.1; -.
HASSP; P14900; 2UAG.
HAMAP; MF\_00639; -; 1.
InterPro; IPR004101; Mur\_ligase\_InterPro; IPR000713; Mur\_ligase\_InterPro; IPR005762; MurD.

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RESULT

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                                                InterPro; IPR005839; UPF0004.
Pfam; PF04055; Radical SAM; 1.
Pfam; PF01938; TRAM; 1.
Pfam; PF00939; UPF0004; 1.
SMART; SM00729; Elp3; 1.
TIGRPAMS; TIGR01578; MiaB-like-B;
                                                                                                                                                                                                                                                                                                                                                                                 Cheuk R., Chen H., Kim C.J., Shinn P., Bowser L., Carninci P., Chan M.M., Chang C.H., Dale J.M., Hayashizaki Y., Hsuan V.W., Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B., Lee J.M., Lin J., Miranda M., Narusaka M., Nguyen M., Onodera C.S., Palm C.J., Quach H.L., Sakurai T., Satou M., Seki M., Southwick A., Tang C.C., Toriumi M., Wong C., Wu H.C., Yamada K., Yu G., Yuan S., Shinozaki K., Davis R.W., Theologis A., Ecker J.R.; Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.

EMBL; AC06273; AAG51137.1; EMBL; A7367274; AAK56263.1; EMBL; BT002712; AAO1628.1; -.
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Q9C7H2;
01-JUN-2001
                                                                                                                                                                                                       PIR; B96744, B96744.
GO; GO:000384; F:catalytic activity; IEGO; GO:0005506; F:iron ion binding; IEA.
InterPro; IPR006638; Elp3/MiaB/NifB.
InterPro; IPR006466; MiaB like B.
InterPro; IPR007197; Radical SAM.
InterPro; IPR002792; TRAM.
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Lin X., Kaul S., Town C.D
Maiti R., Ronning C.M., K
Barnstead M.E., Bownan C.
                                     TIGRFAMs;
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Bowser L., Carninci P., Chung M.K., Goldsmith A.D., Hayashizaki Y.,
Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B.
Lee J.M., Lin J., Liu S.X., Miranda M., Narusaka M., Nguyen M.,
Lee J.M., Lin J., Liu S.X., Miranda M., Narusaka M., Nguyen M.,
Palm C.J., Pham P.K., Quach H.L., Sakano H., Sakurai T., Satou M.,
Seki M., Southwick A., Toriumi M., Yamada K., Yu G., Shinozaki K.,
Davis R.W., Theologis A., Ecker J.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted
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Spermatophyta; Magnoliophyta; eudicotyle
eurosids II; Brassicales; Brassicaceae;
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Pfam; PF02875; Mur_ligase_C; 1.
ATP-binding; Cell division; Cell
Peptidgglycan synthesis.
NP_BIND 119 125 ATP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Southwick A., Toriumi M., Yamada K., Yu G., Shi
W., Theologis A., Ecker J.R.;
d (MAR-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      459 AA;
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Viridiplantae; Streptophyta; Embryophyta; Tracheor
Viridiplantae; Streptophyta; Embryophyta; Tracheor
Viridiplantae; Streptophyta; endicotyledons; core eudicots;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TrEMBLrel. 17, Created)
(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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50137 MW;
                                UPF0004; 1.
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H., Fujii C.Y., Utterback
, White O., Nierman W.C., F
EMBL/GenBank/DDBJ database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 6; DB 1; Pred. No. 54; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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ck T.R.,
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udicots; rosids;
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RESULT 8
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ID PRTS_SERWA
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DT 01-MAR
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RC STRAIN
RA YANAGI
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RT "Detec
RN [2]
RA Shikat
RT "Detec
RT Escher
RT Interf
DR HSSP;
DR HSSP;
DR HSSP;
DR Pfam;
DR Pfam;
DR Pfam;
DR Pfam;
DR Pfam;
DR PROSIT
DR PROSIT
RW ZYMOGE
FT SIGNAL
FT CHAIN
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Best Local S
Matches 6
                                                                                                         InterPro; IPR005346; Auto_transpotbeta.
InterPro; IPR006315; Autotransporter.
InterPro; IPR000209; Pept S8 S53.
InterPro; IPR011165; Pept_S8A autrans.
Pfam; PF03797; Autotransporter; 1.
Pfam; PF00082; Peptidase_S8; 1.
PIRSF; PIRSF001164; Autotransborter; 1.
PRINTS; PR00723; SUBTILISIN.
  Zymogen.
SIGNAL
CHAIN
                                                        TIGREAMS; TIGRO1414; autotrans barl; PROSITE; PS00136; SUBTILASE ASP; FALS PROSITE; PS00137; SUBTILASE HIS; 1. PROSITE; PS00138; SUBTILASE_SER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS50
PROSITE; PS01
Hypothetical
SEQUENCE 60
                                                                                                                                                                                                                                                          EMBL; M13469; AAA26572.1;
PIR; A29840; A29840.
                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long as modified and this statement is not removed. U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PARTIAL SEQUENCE, AND PROCESSING,
MEDLINE=92348352; PubMed=1639760,
Shikata S., Shimada K., Kataoka H., Hornov
"Detection of large COOH-terminal domains
of Serratia marcescens serine protease in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yanagida N., Uozumi T., Beppu T.;
"Specific excretion of Serratia marcescens
membrane of Escherichia coli.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Serratia marcescens.
Bacteria; Proteobacteria; Gammaproteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-1989 (Rel. 10,
01-MAR-1989 (Rel. 10,
25-OCT-2004 (Rel. 45,
                                              Direct
                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                            between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PARTIAL SEQUENCE,
MEDLINE=92348352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Extracellular serine protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P09489;
01-MAR-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Escherichia coli.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=IFO 3046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Enterobacteriaceae; Serratia.
                                                                                                                                                                                                                                                                                                                                                                                                               -!- SIMILARITY: Belongs to the peptidase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=86223815;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Biochem. 111:627-632(1992).
- SUBCELLULAR LOCATION: Secr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bacteriol.
                                                                                                                                                                                                                                                                                                                                       3 SWISS-PROT entry is copyright. It is produced through
ween the Swiss Institute of Bioinformatics and the E
European Bioinformatics Institute. There are no rest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SERMA
                                                                                                                                                                                                                               Q99405; 1MPT.
S; S08.094; ~.
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PS01278; UPF0004;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       al protein.
601 AA; 6
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28
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                                           sequencing;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            519
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  27
645
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                                            Hydrolase;
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Extracellular serine protease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                precursor
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Pred. No. 70;
Mismatches
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                                                                             arl; 1.
FALSE_NEG.
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70;
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                                                                                                                                                                                                                                                                                                                                                                                    is produced through
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Best Local (
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Q8IA76;
01-MAR-2003
01-MAR-2003
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ACT_SITE
ACT_SITE
ACT_SITE
SEQUENCE
Wormbase; WBGene00004045; pll-1.

Wormbep; K10Fl2.3b; CB31037.

GO; GO:0004435; F:phosphoinositide phospholipase C GO; GO:0007242; P:intracellular signaling cascade; GO; GO:0006629; P:lipid metabolism; IEA.

InterPro; IPR008973; C2.

InterPro; IPR008973; C2 CALB.

InterPro; IPR001849; PH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE ....
STRAIN-ENTISTOI N2;
Wohldmann P., Beck C.;
Wohldmann P., Beck C.;
"The sequence of C. elegans
"The sequence of C. elegans
                                                                                                                                                                              WormBase Consortium;
Submitted (SEP-2004) to the EMBL/GenBank/DDBJ
-!- SIMILARITY: Contains 1 C2 domain.
EMBL; AF025462; AAN72423.1; -.
HSSP; P10688; 1DJH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Phospholipase c like protein 1, isoform b.
Name=pll-1; ORFNames=K10F12.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                  Submitted
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WormBase Consortium,
"Genome sequence of the nematode C. elegans: a platform for
investigating biology. The C. elegans Sequencing Consortium
Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                 STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                         Wilson R
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wilson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Waterston
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6; Conserv
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0; Mismatches
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EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL/GenBank/DDBJ
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L.2e+02;
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(By similarity).
(By similarity).
(CRC64;
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                                                                                                               activity; IEA.
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RESULTATOR RESULTATION OF THE PROPERTY OF THE 
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Science [2]
                                                                 Wilson R.;
Submitted
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01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Phospholipase c like protein 1, isoform a.
Name-pll-1; ORFNames-K10F12.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMART; SM00233; PH; 1.
SMART; SM00148; PLCXC; 1.
SMART; SM00149; PLCYC; 1.
PROSITE; PS50004; C2 DOMAIN 2; 1.
PROSITE; PS50007; PIPLC X DOMAIN; 1.
PROSITE; PS50008; PIPLC Y DOMAIN; 1.
  SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                       STRAIN-Bristol Wilson R.;
                                                                                                                                                                                              STRAIN-Bristol
Wilson R.;
                                                                                                                                                                                                                  SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                           Wohldmann P., Beck C.; "The sequence of C. ele; Submitted (SEP-1997) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wormbase Consortium; "Genome sequence of the nematode C. investigating biology. The C. elegan Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=6239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
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SMART; SM00233; PH; 1.
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InterPro; IPR000909;
InterPro; IPR001711;
                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                        Waterston
                                                                                                                                                                                                                                                                                                                            STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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PRINTS; PR00390; PHPHLIPASEC.
ProDom; PD001202; PI_PLC_Y; 1
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PF00388; PI-PLC-X; 1.
PF00387; PI-PLC-Y; 1.
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                                                                                                           N2;
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7) to the
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PLC.
PI_PLC_X.
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EMBL/GenBank/DDBJ
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Pred. No.
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ns Sequencing Consortium.";
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1.2e+02;
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ADD DATE DOTES OF THE PROPERTY OF THE PROPERTY
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Q7QZU9
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Best Local S
Matches 6
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PRINTS; PRO0390; PHPHLIPASEC.

PRODOM; PD001202; PI PLC_Y; 1.

SMART; SM00239; C2; 1.

SMART; SM00239; PL; 1.

SMART; SM00148; PLCXC; 1.

SMART; SM00149; PLCYC; 1.

SMART; SM00149; PLCYC; 1.

PROSITE; PSS0004; C2 DOMAIN 2; 1.

PROSITE; PSS0007; PIFLC X DOMAIN; 1.

PROSITE; PSS0008; PIPLC_Y DOMAIN; 1.

SEQUENCE 1075 AA; 12111 MW; 61021:
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InterPro; IPR001192; p
InterPro; IPR000909; p
InterPro; IPR001711; P
                                                                                                                                                                                                                                                         MOILING. ...., Sogin M.L.;
Olsen G.J., Sogin M.L.;
"Draft sequence of the Giardia lamblia genome.";
"Draft sequence of the EMBL/GenBank/DDBJ databas
Submitted (MAR-2003) to the EMBL/GenBank/DDBJ databas
-i- CAUTION: The sequence shown here is derived from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q7QZU9
Q7QZU9;
Q1-MAR-2004
01-MAR-2004
01-MAR-2004
                                                     InterPro; IPR000742; EGF 2.
InterPro; IPR006209; EGF like.
InterPro; IPR005127; Giardia VSP.
InterPro; IPR009030; Grow fac recept.
InterPro; IPR002049; Laminin EGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLP_609_15416_20263.
Giardia lamblia ATCC 50803.
Eukaryota; Diplomonadida; Hexamitidae;
                                                                                                                                                                                                      EMBL; AACB01000040; EAA40566.1; -. HSSP; P35555; 1EMN.
                                                                                                                                                                                                                                                                                                                                                                                    Morrison H.G., McArthur A.G., Adam R.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=WB C6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR000008; C2.
InterPro; IPR008973; C2 CaLB.
InterPro; IPR001847; PH
                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=184922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00168; C2; 1
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Submitted (SEP-2004)
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                                                                                                                                                                                     GO:0005198;
                                                                                                                                                                                                                                                      preliminary data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GO:0004435; F:phosphoinositide phospholipase C GO:0007242; P:intracellular signaling cascade; GO:0006629; P:lipid metabolism; IEA.
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              Laminin_EGF; 1.
  VSP;
                                              EGF;
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; PI_PLC.
; PI_PLC_X.
; PI_PLC_Y.
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o. 1.2e+02;
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Matches
MEDLINE-2013820; PubMed=10729156; DOI=10.1128/JVI.74.8.3815-3831.2000; Afonso C.L., Tulman E.R., Lu Z., Zsak "The genome of fowlpox virus."; J. Virol. 74:3815-3831(2000).
EMBL; AF198100; AAF44466.1; -...
InterPro; IPR007490; Poxvirus B22R. Pfam; PP04395; Poxvirus B22R; 1.
SEQUENCE 1870 AA; 211756 MW; 2423D
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Q9J5A0;
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J. Gen. Virol. 85:305-322(2004).
EMBL; AJ581527; CAE52663.1; -.
InterPro, IPR007490; Poxvirus B22R.
Pfam; PF04395; Poxvirus B22R; 1.
SEQUENCE 1870 AA; 211756 MW; 2423D319743D3F2F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                       01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
ORF FPV122 variola B22R gene family protein.
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05-JUL-2004 (TrEMBLrel. 27, Created)
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05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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Name=fp9.122;
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Viruses; dsDNA viruses, no RNA stage; P
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PS01186; EGF_2; 12.
PS50026; EGF_3; 2.
PS5026; EGF_3; 2.
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itive 0; Mismatches
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LMA2 HUMAN STANDARD;

ID STANDARD;

AC P24043; Q14736; Q93022;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=94124633; PubMed=8294519; DOI=10.1083/jcb.124.3.381; Vuolteenaho R., Nissinen M., Sainia K., Byers M., Eddy R., Hirvonen H., Shows T.B., Sariola H., Engvall E., Tryggvason K.; "Human laminin M chain (merosin): complete primary structure, chromosomal assignment, and expression of the M and A chain in human
                                                                                        MEDLINE=21476011; PubMed=11591858;
He Y., Jones K.J., Vignier N., Mor
Estournet-Mathiaud B., Hori H., Mi
                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhang X., Vuolteenaho R., Tryggvason K.;
"Structure of the human laminin alpha2-chain gene
affected in congenital muscular dystrophy.";
J. Biol. Chem. 271:27664-27669(1996).
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01-NOV-1997 (Rel. 35, Last sequence update)
25-VAN-2005 (Rel. 46, Last annotation update)
Laminin alpha-2 chain precursor (Laminin M chain) (Merosin heavy
                                                                                                                                                                          Panicker S.G.,
Marzluf G.A.,
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MEDLINE=97066955; PubMed=8910357; DOI=10.1074/jbc.271.44.27664;
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VARIANTS MDC1A TYI
MEDLINE=22439669;
                                       "Congenital muscular dystrophy with chain deficiency: molecular study.", Neurology 57:1319-1322(2001).
                                                                                                                                  VARIANT MDC1A PRO-2564
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a tissue-specific basement
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13:340-340(1999).
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TYR-527 AND ARG-862.
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mato A.A., Mendell
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J.R.;
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nt membrane protein, is a laminin-
 DOI=10.1002/humu.10157;
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Angelini C., Hoffman E.P., Park J., Tyson W., Finkel R., Garcia C., "Clinical and molecular study in congenital muscular dystrophy with partial laminin alpha-2 (LAMA2) deficiency.";

Hum. Mutat. 2:103-111(2003).

-i- FUNCTION: Binding to 2017-
                                                                                                  FUNCTION: Binding to cells via a high affinity receptor, laminin is thought to mediate the attachment, migration and organization of cells into tissues during embryonic development by interacting
                                                                                                         interacting
bound
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with other extracellular matrix components. SUBUNIT: Laminin is a complex glycoprotein, consisting of three different polypeptide chains (alpha beta, gamma), which are bout o each other by disulfide bonds into a cross-shaped molecule comprising one long and three short arms with globules at each end. The alpha-2 chain is a subunit of laminin-2 (merosin) and laminin-4 (S-merosin).
SUBCELLULAR LOCATION: Extracellular; found in the basement

TISSUE SPECIFICITY: Placenta, membranes (major component). striated muscle, peripheral nerve,
, kidney, adrenal gland,

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EMBL; U66796 AAB18388.1;
U66733 AAB18388.1;
U66735 AAB18388.1;
U66735 AAB18388.1;
U66737 AAB18388.1;
U66737 AAB18388.1;
U66739 AAB18388.1;
U66739 AAB18388.1;
U66774 AAB18388.1;
U66752 AAB18388.1;
U66753 AAB18388.1;
U66754 AAB18388.1;
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U66758 AAB18388.1;
U66759 AAB18388.1; Z26653; CAA81394.1; JOINED

AAB18388. AAB18388. AAB18388. AAB18388. AAB18388.

AAB18388

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Query Match
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Matches 6
                                                      Pfam; PF06009; Laminin I; 1.

Pfam; PF000055; Laminin N; 1.

PRINTS; PR00011; EGFLAMININ B;

ProDom; PD003031; Laminin B; 2.

PROSITE; PS00022; EGF 1; 11.

PROSITE; PS01186; EGF 2; 3.

PROSITE; PS051248; LAMININ TYPE EGF; 14.

Basement membrane; Cell adhesion; Coiled coil;

Congenital muscular dystrophy; Direct protein seq
                                                                                                                                                                                                                                                               PIR; PX0082; MMHUMH.

HSSP; G60675; 1DYK.
Genew; HGNC:6482; LAMA2.

MIM; 156225; -.

MIM; 607855; -.

G0:0005604; C:basement membrane; TAS.
G0:G0:0005198; F:structural molecule activity; TA
G0; G0:0005198; F:structural molecule activity; TA
G0; G0:0007517; P:muscle development; TAS.
InterPro; IPR008985; ConA like lec_g1.
InterPro; IPR008979; Gal_bind_like.
InterPro; IPR008979; Gal_bind_like.
InterPro; IPR008979; Gal_bind_like.
InterPro; IPR008979; Gal_bind_like.
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EMBL; U66793; AAB18388.1; J
EMBL; U66794; AAB18388.1; J
EMBL; U66795; AAB18388.1; J
EMBL; U66795; AAB18388.1; J
EMBL; M59832; AAA63215.1;
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9
                  Similarity 6; Conserv
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Search completed: May 4, Job time: 82.2364 secs

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PROSITE; P500425; ARTHROPOD DEFENSINS, Antibiotic; Defensin; Direct protein se DISULFID 4 25 By similar DISULFID 11 33 By similar DISULFID 15 35 By similar SEQUENCE 37 AA; 4212 MW; AB1363ECE3
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P56686; P81618;
15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                         -!- SIMILARITY: Belongs to the arthropod defensin family. Subfamily 2. HSSB; P80571; 1FJN. InterPro; IPR001542; Defensin anpod.
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Buthida; Buthoidea; Buthidae; Ar
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Copyright

GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd

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| Human    |
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# 60

ALIGNMENTS

AAO17999 standard; protein; AAO17999; ₿

Human PSP94 analogue adaptor peptide

30-AUG-2002

(first entry)

#3

Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic

Synthetic.

WO200233090-A2

25-APR-2002.

15-OCT-2001; 2001WO-CA001463

16-OCT-2000; 2000CA-02321256. 20-AUG-2001; 2001CA-02355334.

(PROC-) PROCYON BIOPHARMA INC

Garde S, Panchal CJ, Baijal-Gupta M, Fraser J, Kadhim

ŝ

WPI; 2002-471401/50.

New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.

Disclosure; Page 106; 185pp; English

RESULT 1
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ID AAC1799
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ID AAC179
ID AAC The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betaminhibin operation (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an adaptor peptide useful in the invention

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RESULT 2
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                                                                                                                                                                                                                                                                                                                                                The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an adaptor peptide useful in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New human prostate secretory protein of 94 amino acids, useful for inhibiting growth of e.g. tumor, prostatic adenocarcinoma, stomach gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 106; 185pp; English.
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20-AUG-2001; 2001CA-02355334.
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Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;

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                                                                                                                                                                                                                                                                Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
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The present invention relates to analogues
                                      Claim 2;
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Query Match
Best Local
New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                         WPI; 2002-471401/50
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                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human prostate secretory protein of 94 amino acids PSP94 analogue #8
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                                                                                                                                                                                  16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                               25-APR-2002.
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16; Conserv
                                                                                                                                                  PROCYON BIOPHARMA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard; peptide; 18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 76; 185pp; English
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100.0%; Pr
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Page 77; 185pp; English

of the human prostate

secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The

sequence is an analogue of the invention

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     Best Local Similarity
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Best Local :
                                                           The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSPI) and beta-microseminoprotein (bets-MSP). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the invention
                                                                                                                                                                                                                  New human prostate secretory protein of inhibiting growth of e.g. tumor, prostat gastrointestinal, breast, endometrial, a
                                         Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                             16-OCT-2000; 2000CA-02321256.
20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     benign prostate
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patients with a disease characterized by elevated levels of FSH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
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20-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
WO200233090-A2
                            Homo sapiens.
                                                                      Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP; beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                                                                                                                                                  Human prostate
                                                                                                                                                                                  30-AUG-2002
                                                                                                                                                                                                                                             AAO17923 standard; peptide; 22
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                                                           prostate
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16; Conser
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                                                                                                                                                                                  (first entry)
                                                                                                                                                    secretory protein of 94 amino acids PSP94 analogue #12
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                                                           hyperplasia; cytostatic
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                                                                                                                                                                                                                                                                                                                                                                                                                Length 21;
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                                                                                                                                                                                                                       beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer;
                       Garde S,
                                                                                                                                                                                                                                                              Cancer; human;
                                                                                                                                                                                                                                                                                    Human prostate secretory protein of 94 amino acids PSP94 analogue #13
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                                                                                                                                                                                                          prostate
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                                               PROCYON BIOPHARMA INC
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                                                                                                                                                                                                                                                                                                                                                           standard; peptide;
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                       Panchal CJ,
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                                                                                                                                                                                                                                                              PSP94;
                                                                                                                                                                                                         hyperplasia;
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                       Baijal-Gupta M,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acids, useful for adenocarcinoma, stomach
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Best Local 9
                                   The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (PSP94, also known as prostatic inhibin peptide (PIP), human seminal plasma inhibin (HSP1) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of
                                                                                                                                                                                                                                                                            New human prostate secretory protein of 94 amino acids, us inhibiting growth of e.g. tumor, prostatic adenocarcinoma, gastrointestinal, breast, endometrial, and ovarian cancers
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                                                                                                                                                                                                                                   Claim
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20-AUG-2001;
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                                                                                                                                                        The present invention relates to analogues of the human prostate secretory protein of 94 amino acids (pSp94, also known as prostatic inhibin peptide (pIP), human seminal plasma inhibin (HSP1) and betamicroseminoprotein (bets-MSP)). The analogues are useful for inhibiting growth of tumours, prostatic adenocarcinoma, stomach or gastrointestinal cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The
                                                                                                                                                                                                                                                                                                                                                                                                                       New human prostate secretory protein of 94 amino acids, us inhibiting growth of e.g. tumor, prostatic adenocarcinoma, gastrointestinal, breast, endometrial, and ovarian cancers
                                                                                               Sequence 25
                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-471401/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       epithelial secretion, or benign prostate hyperplasia and for treating patients with a disease characterized by elevated levels of FSH. The present sequence is an analogue of the immortion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (PROC-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-AUG-2001;
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prostate secretory protein of 94 amino acids; prostatic adenocarcinoma;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                stomach cancer;
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                          Similarity
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    Conservative
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2001CA-02355334.
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                                                                                                                                         analogue
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                        16;
                                                                                                                                           invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human prostate secretory protein of 94 inhibiting growth of e.g. tumor, prostatic gastrointestinal, breast, endometrial, and
Cancer; human; PSP94; prostatic inhibin protein; PIP; HSPI; beta-MSP
                          Human prostate
                                                    30-AUG-2002
                                                                                                                                                                                                                                                                                  Sequence 26
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                                                                                                       AAO17928 standard; peptide;
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20-AUG-2001; 2001CA-02355334.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       amino acids, useful for adenocarcinoma, stomach, ovarian cancers.
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                                                                                                                                                                                                                                                                                                                      New human prostate secretory protein of 94 amino acids, use inhibiting growth of e.g. tumor, prostatic adenocarcinoma, gastrointestinal, breast, endometrial, and ovarian cancers.
                                                                                                                 Sequence 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      beta-microseminoprotein; human seminal plasma inhibin; analogue; prostate secretory protein of 94 amino acids; prostatic adenocarcinoma; stomach cancer; breast cancer; endometrial cancer; ovarian cancer; benign prostate hyperplasia; cytostatic.
                                                                                                                                                                                                                                                                                             Claim 2;
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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US-09-562-702A-4
US-09-562-702A-6
US-09-562-702A-6
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US-09-030-619-200
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US-09-513-976-5750
US-09-513-996-7986
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Sequence 17, Appl
Sequence 20514, A
Sequence 7517, Ap
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7, Appli
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11, Appl
10, App
200, App
5440, Appl
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8, Appli
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2, Appli
6, Appli
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7807, Ap
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| 44.07               | 44                | 43                  | 42                | 41                | 40                | 39                | 38                | 37                 | 36                | 35                | 34                | 33                | 32                | 31                   | 30                | 29                  | 28                  |
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| 8.3                 | 8.3               | 8.3                 | 8.3               | 8.3               | 8.3               | 8.3               | 8.3               | 8.3                |                   |                   | 8.3               | 8.3               |                   | 8.3                  | 8.3               | 8.3                 | 8.3                 |
| 316                 | 316               | 315                 | 314               | 314               | 314               | 314               | 261               | 259                | 243               | 243               | 243               | 243               | 231               | 230                  | 192               | 188                 | 110                 |
| 4                   | 1                 | 4                   | თ                 | 4.                | w                 | ٢                 | 4.                | 4                  | N                 | N                 | N                 | N                 | 4                 | 4                    | w                 | 4                   | 4                   |
| US-09-543-681A-5873 | US-08-482-282B-4  | US-09-902-540-14527 | PCT-US96-09848-4  | US-08-768-619-4   | US-09-005-298-4   | US-08-486-036A-4  | US-09-962-357-8   | US-09-328-352-5038 | US-08-125-077-16  | US-08-125-077-15  | US-08-460-309-16  | US-08-460-309-15  | US-09-265-540E-4  | US-09-248-796A-21826 | US-08-685-466C-4  | US-09-270-767-61692 | US-09-513-999C-7055 |
| Sequence 5873, Ap   | Sequence 4, Appli | Sequence 14527, A   | Sequence 4, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 8, Appli | Sequence 5038, Ap  | Sequence 16, Appl | Sequence 15, Appl | Sequence 16, Appl | Sequence 15, Appl | Sequence 4, Appli | Sequence 21826, A    | Sequence 4, Appli | Sequence 61692, A   | Sequence 7055, Ap   |

# ALIGNMENTS

RESULT 1 US-07-899-535A-1

sequence 1, Application US/07899535A Patent No. 5428011

GENERAL INFORMATION:

Sheth, Anil R. Garde, Seema

APPLICANT: Panchal, Chandra J.

TITLE OF INVENTION: Pharmaceutical Preparations For

TITLE OF INVENTION: Inhibiting Tumours Associated With Prostate

TITLE OF INVENTION: Adenocarcinoma, Stomach Cancer and Breast Cancer.

CORRESPONDENCE ADDRESS:
ADDRESSEE: Mr. Georg NUMBER OF SEQUENCES:

STREET:

2001 Jefferson

Davis Highway, Suite 306

George Loud

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; HYPOTHETICAL: US-07-899-535A-1
                                                                                                                                                 TELEFAX: 703-415-0962
TELEX: 24 8614
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 94 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/899,535A
FILING DATE: 16-JUN-1992
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Loud, George A.
REGISTRATION NUMBER: 25,814
REFERENCE/DOCKET NUMBER: S&B-A835
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-415-0960
TELEPHONE: 703-415-0960
Best Local Similarity
Matches 16; Conserva
                                       Query Match
                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                    TELEPHONE: 703-415-0962
                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 22202
                                                                                                                                         linear
                                                                                               : protein
                   26.7%; Score 16; DB 1; 100.0%; Pred. No. 7e-12;
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Mismatches

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; NAME/KEY: SIGNAL
; LOCATION: -20..-1
; OTHER INFORMATION: score 9
; OTHER INFORMATION: seq VVIFATFVTLCNA/SC
US-09-513-999C-7807
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US-09-513-999C-7807
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 1999-02-
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/513,999C CURRENT FILING DATE: 2000-02-24 PRIOR APPLICATION NUMBER: US 60/122,487
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Dumas Milne Edwards, J.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
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CLASSIFICATION: 435
CLASSIFICATION DATA:
APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10730
FILING DATE: 21-SEP-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell
                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
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                                                                                                                                                                                                                                                                             STREET: 45. COUNTY: San Diego
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ITILE OF INVENTION: Fragments and Uses Thereof
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                                                                                                              FILING DATE:
                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                               COUNTRY:
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                                                                                                                                                                                                                                                                                                             4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                             USA
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Leivo, Ilmo
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;; Pred. No.
0; Mismatch
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US-08-125-077-17
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Best Local (
TELEFAX: (619) 535-89.
INFORMATION FOR SEQ ID NO:
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INFORMATION FOR SEQ ID NO:
                           REFERENCE/DOCKET NUMBER: P-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 92122
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                               APPLICATION NUMBER: US 07/919,951 FILING DATE: 27-JUL-1992 ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US PO
FILING DATE: 21-SEP-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US O'
APPLICATION NUMBER: US O'
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APPLICATION NUMBER: US.
FILING DATE: 22-SEP-19
CLASSIFICATION: 435
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CITY: San Diego
CTATE: California
                                                                                                                                                                   PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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             TELEPHONE: (619)
                                                                                 NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,81
                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                     FILING DATE:
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REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
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4370 La Jolla Village Drive, Suite 700
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Leivo, Ilmo
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                                                                                                                                                                                                   US 07/472,319
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                                                                  P-LA 9721
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US-09-949-016-7517
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US-09-248-796A-20514
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; TOPOLOGY: linear
US-08-125-077-17
                                                                ; ORGANISM: Human US-09-949-016-7517
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APPLICANT: Keith Weinstock et al

TITLE OF INVENTION: NUCLEIC ACID AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICAN
TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.132
                                                                                                                                               SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 7517
                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 20514
LENGTH: 362
TYPE: PRT
ORGANISM: Candida albicans
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Best Local Similarity
Query Match
Best Local Similarity
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Best Local (
                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR PELIOR DATE: 2000-10-03
PRIOR FILING DATE: 2000-9-08
PRIOR FILING DATE: 2000-9-08
PRIOR FILING DATE: 2000-9-08
PRIOR FILING DATE: 2000-9-08
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/248,796A CURRENT FILING DATE: 1999-02-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 60/074,725 PRIOR FILING DATE: 1998-02-13
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LENGTH: 241 amino acids
TYPE: amino acid
                                                                                                                       ENGTH: 2123
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      341 TEWQTD 346
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10.0%; Score 6; DB 4; 100.0%; Pred. No. 59;
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                   Length 2123;
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 7
LENGTH: 3070
TYPE: PRT
ORGANISM: Homo sapiens
US-09-961-403-7
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FILE REFERENCE: 99-274-B
CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-18
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
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US-09-961-403-7
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Patent No. 6632790
GENERAL INFORMATION:
APPLICANT: Yurchenco, Peter
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Best Local Similarity
Matches 6; Conserv
                                                   Query Match
Best Local Similarity
                                                                                                                                                                        SEQ ID NO 8
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APPLICANT: HE-STUMPP, HOLGER
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                                                                                                                                                                                                        PRIOR FILING DATE: 1999-04-30 NUMBER OF SEQ ID NOS: 32
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CURRENT FILING DATE: 2001-09-25
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TITLE OF INVENTION: METHOD FOR IN VITRO DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: SCH-1789
                                                                                                                                                                                        SOFTWARE: PatentIn Ver.
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                                                                                                                   LENGTH: 3088
TYPE: PRT
ORGANISM: Homo sapiens
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 6 NCETCT 11
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REGIDOR, PEDRO
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KREFT, BERTHOLT
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                                   Conservative
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100.0%; Pred. No. 82
tive 0; Mismatches
                                                   10.0%; Score 6; 1
100.0%; Pred. No.
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367 NCETCT 372

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                                                                                                                                                ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-562-702A-2
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PRIOR FILING DATE: 1999-07-12
PRIOR PPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR APPLING DATE: 1999-04-30
NUMBER OF SEQ ID NOS: 32
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Best Local S
Matches 6
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PRIOR FILING DATE: 1999-09-24
PRIOR APPLICATION NUMBER: 60/143,289
PRIOR FILING DATE: 1999-07-12
PRIOR APPLICATION NUMBER: 60/139,198
PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR FILING DATE: 1999-04-30
                                                                        Matches
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                                                                                                           Query Match
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Patent No. 6632790
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                                                                                                                                                                                                                                          SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
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SOFTWARE: Patentin Ver.
                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Laminin 2 and Methods for Its Use FILE REFERENCE: 99-274-B
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TYPE: PRT
ORGANISM: Homo sapiens
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mes 6; Conserv
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389 NCETCT 394
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                                                                      ilarity 100.0%; I Conservative 0;
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100.0%; Pred. No
tive 0; Mismat
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k; Pred. No. 83;
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                                                                                     DB 4;
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o. 83;
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RESULT 11

RESULT 13
US-09-917-254-86
; Sequence 86, Application US/09917254
; Patent No. 6703204

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Best Local Similarity
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US-09-561-709B-7
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 7
                                                                   Matches
                                                                                  Query Match
Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 7, Application US/09561709B Patent No. 6682911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 6, Application US/09562702A
Patent No. 6632790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                               APPLICANT: Brunken, William TITLE OF INVENTION: LAMININS AND USES THEREOF FILE REFERENCE: 10287-060001
CURRENT APPLICATION NUMBER: US/09/561,709B
CURRENT FILING DATE: 2000-05-01
                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 09/168,949 PRIOR FILING DATE: 1998-10-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/131,720
PRIOR FILING DATE: 1999-04-30
                                                                                                                                                  LENGTH: 3110
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                             PRIOR FILING DATE: 1997-10-10
                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/061,609
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Olson, Pamela APPLICANT: Koch, Manuel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: 60/139,198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/562,702A
CURRENT FILING DATE: 2000-04-28
PRIOR APPLICATION UNMBER: 60/155,945
PRIOR FILING DATE: 1999-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Yurchenco, Peter TITLE OF INVENTION: Laminin 2 and Methods for Its Use FILE REFERENCE: 99-274-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Burgeson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 1999-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/143,289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 3110
                                                                Local Similarity es 6; Conserv
389 NCETCT 394
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                                 6 NCETCT 11
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                                                                   Conservative
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; SOFTWARE: PatentIn versic
; SEQ ID NO 86
; LENGTH: 3110
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-09-917-254-86
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; TYPE: PRT
; ORGANISM: Human
US-09-949-016-5937
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US-08-460-309-4
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Best Local Similarity 100.
Thes 6; Conservative
              Sequence 4, Application US/08460309 Patent No. 5837496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 5937
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Mutter, George
APPLICANT: Baak, Jan
TITLE OF INVENTION: Prognostic Classification of Breast Cancer
FILE REFERENCE: B0801/7224(JRV)
CURRENT APPLICATION NUMBER: US/09/917,254
CURRENT FILING DATE: 2001-07-27
PRIOR APPLICATION NUMBER: US 60/222,093
PRIOR FILING DATE: 2000-07-28
NUMBER OF SEQ ID NOS: 102
NUMBER OF SEQ ID NOS: 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENERAL INFORMATION:
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CURRENT FILING DATE: 2000-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                       389 NCETCT 394
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    Campbell and Flores
    4370 La Jolla Village Drive, Suite 700

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100.0%; Pr
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Search completed: May 4,
Job time : 31.7636 secs
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Best Local Similarity
Matches 6; Conserv
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/472,319
FILING DATE: 30-JAN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/919,951
FILING DATE: 27-JUL-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                 TELEFAX: (619) 535-89: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 3111 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 08/125,077
FILING DATE: 22-SEP-1993
APPLICATION NUMBER: US PCT/US 94/10730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/460,309 FILING DATE: CLASSIFICATION: 435
                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,81
                                                                                                                   6 NCETCT 11
                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          California
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100.0%; Pred. No. 83;
tive 0; Mismatches
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Perfect score:
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BC
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/cgn2_6/ptodata/1/pubpaa/PCT_i
/cgn2_6/ptodata/1/pubpaa/US06
                                                                               /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*
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_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
_6/ptodata/1/pubpaa/US11_NEW_PUB.pep:*
_6/ptodata/1/pubpaa/US60_PUBCoMB.pep:*
_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

| 13                | 12                | 11                | 10                | 9                 | 80                | 7                 | 6                 | U                 | 4                 | ω                 | 2                 | ۲                 | Result<br>No.            |
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| 16                | 16                | 16                | 16                | 16                | 16                | 16                | 16                | 16                | 16                | 30                | 45                | 60                | Score                    |
| 26.7              | 26.7              | 26.7              | 26.7              | 26.7              | 26.7              | 26.7              | 26.7              | 26.7              | 26.7              | 50.0              | 75.0              | 100.0             | Query<br>Match I         |
| 25                | . 24              | 23                | 22                | 21                | 20                | 19                | 18                | 17                | 16                | 30                | 45                | 60                | Query<br>Match Length DB |
| 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | 10                | Ħ                        |
| US-09-977-406A-19 | US-09-977-406A-18 | US-09-977-406A-17 | US-09-977-406A-16 | US-09-977-406A-15 | US-09-977-406A-14 | US-09-977-406A-13 | US-09-977-406A-12 | US-09-977-406A-11 | US-09-977-406A-10 | US-09-977-406A-90 | US-09-977-406A-91 | US-09-977-406A-92 | ID                       |
| Sequence 19, Appl | Sequence 18, Appl | Sequence 17, Appl | -                 | Sequence 15, Appl | •                 | •                 | Sequence 12, Appl | Sequence 11, Appl | Sequence 10, Appl | Sequence 90, Appl | Sequence 91, Appl | Sequence 92, Appl | Description              |

| 45             | 44  | 43             | 42        | 41                | 40                | 39                | 38                | 37             | 36            | 35             | 34             | 33             | 32             | 31             | 30                | 29             | 28             | 27             | 26             | 25             | 24            | 23             | 22            | 21       | 20            | 19             | 18        | 17            | 16            | 15        |
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| 16             | 16  | 16             | 16        | 16                | 16                | 16                | 16                | 16             | 16            | 16             | 16             | 16             | 16             | 16             | 16                | 16             | 16             | 16             | 16             | 16             | 16            | 16             | 16            | 16       | 16            | 16             | 16        | 16            | 16            | 16        |
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| 57             | 56  | 55             | 54        | 53                | 52                | 51                | 50                | 49             | 48            | 47             | 46             | 4.5            | 44             | 43             | 42                | 41             | 40             | 39             | 38             | 37             | 36            | 35             | 34            | 33       | 32            | 31             | 30        | 29            | 28            | 27        |
| 10             | 10  | 10             | 10        | 10                | 10                | 10                | 10                | 10             | 10            | 10             | 10             | 10             | 10             | 10             | 10                | 10             | 10             | 10             | 10             | 10             | 10            | 10             | 10            | 10       | 10            | 10             | 10        | 10            | 10            | 10        |
| -09-977-406A-5 | 6A- | -09-977-406A-4 | 77-406A-4 | US-09-977-406A-47 | US-09-977-406A-46 | US-09-977-406A-45 | US-09-977-406A-44 | -09-977-406A-4 | -09-977-406A- | -09-977-406A-4 | -09-977-406A-4 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | US-09-977-406A-36 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A-3 | -09-977-406A- | -09-977-406A-2 | -09-977-406A- | -09-977- | -09-977-406A- | -09-977-406A-2 | 77-406A-2 | -09-977-406A- | -09-977-406A- | 77-406A-2 |
| equenc         | Φ   | Ø              | æ         | O                 | æ                 | Ø                 | æ                 | Œ              | Φ             | æ              | æ              | Ф              | æ              | æ              | æ                 | O              | æ              | æ              | æ              | æ              | æ             | Sequence 29,   | Ø             | æ        | O             | æ              | æ         |               | Sequence 22   |           |
| -              | •   | •              | •         | 7, App            | •                 | •                 | •                 | •              | •             |                |                |                | β, App         |                |                   |                |                |                |                |                |               | 9, App         |               |          |               | 5, App         |           |               |               |           |

#### ALIGNMENTS

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RESULT 2
US-09-977-406A-91
; Sequence 91, Application US/09977406A
                                                                                                                                                                                                                                                                                                        ; ORGANISM: Artificial Sequence ; FEATURE: OTHER INFORMATION: Polypeptide derived from PCK3145 sequence (polypeptide analog) US-09-977-406A-92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 1
US-09-977-406A-92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 92, Application US/09977406A

Publication No. US20030170220A1

GENERAL INFORMATION:

APPLICANT: PROCYON BIOPHARMA INC.

APPLICANT: PROCYON BIOPHARMA INC.

TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS

FILE REFERENCE: 06508-030-US-03

CURRENT APPLICATION NUMBER: 03/09/977,406A

CURRENT APPLICATION NUMBER: CA 2,321,256

PRIOR APPLICATION NUMBER: CA 2,321,256

PRIOR APPLICATION NUMBER: CA 2,321,256

PRIOR APPLICATION NUMBER: CA 2,321,256
                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 60; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn version 3.1
SEQ ID NO 92
LENGTH: 60
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
                                                                                                                                                1 EWQTDNCETCTCYETEWQTDNCETCTCYETEWQTDNCETCTCYETEWQTDNCETCTCYET 60
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Pred. No. 1e-59;
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US-09-977-406A-10
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JS-09-977-406A-90
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                                                                         GENERAL INFORMATION:
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Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
                                                                                           Sequence 10, Application US/09977406A Publication No. US20030170220A1
                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
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LENGTH: 30
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Best Local
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                                 APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
CURRENT APPLICATION NUMBER: US/09/977,406A
                 FILE REFERENCE: 06508-030-US-03
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PRIOR APPLICATION NUMBER: CA 2,355,334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
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PRIOR FILING DATE: 2001-08-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
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PRIOR FILING DATE: 2000-10-16
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                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
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TYPE: PRT
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Pred. No.
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                                 METHODS FOR INHIBITING TUMORS
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SOFTWARE: PatentIn ver
SEQ ID NO 10
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Best Local :
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Best Local
                                                               PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
                                                                                                       CURRENT APPLICATION NUMBER: US/09/977,406A CURRENT FILING DATE: 2001-10-15
                                 PRIOR APPLICATION NUMBER: CA 2,355,334 PRIOR FILING DATE: 2001-08-20
                NUMBER OF SEQ ID NOS:
                                                                                                                                           FILE REFERENCE:
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
FILE REFERENCE: 06508-030-US-03
                                                                                                                                                          TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
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PatentIn version 3.1
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                                                                                                                                                                                                                                 Application US/09977406A
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Pred. No.
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2.9e-11
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; OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
US-09-977-406A-14
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Publication No.
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Best Local :
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-09-977-406A-13
                                                                                                                                         PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
NUMBER OF SEQ ID NOS: 92
                                                                                                                                                                                                                                  FILE REFERENCE: 06508-030-US-03
CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
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PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
PRIOR FILING DATE: 2001-08-20
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                                                                                                                         SOFTWARE: PatentIn version 3.1
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                                    TYPE: PRT
ORGANISM: Artificial Sequence
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FEATURE:
OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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ORGANISM: Artificial Sequence
FEATURE:
                                  FEATURE:
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                                        Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                           SEQ ID NO 16
LENGTH: 22
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SEQ ID NO 15
LENGTH: 21
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                                                                                                                                                                                                                                                                 PRIOR FILING DATE: 200 NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
PRIOR APPLICATION NUMBER: CA 2,355,334
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
FILE REFERENCE: 06508-030-US-03
                                                                                                                                                                                                                                                SOFTWARE: PatentIn version 3.1
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                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS
                                                                                                                                 OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)
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                                        26.7%; Score 16; DB 10; 100.0%; Pred. No. 3.8e-11; ive 0; Mismatches 0;
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RESULT 13
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US-09-977-406A-18
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Sequence 19, Application US/09977406A Publication No. US20030170220A1 GENERAL INFORMATION:
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SEQ ID NO 18
LENGTH: 24
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Publication No.
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PRIOR FILING DATE: 2001-08-20
NUMBER OF OF OF
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Publication No. US20030170220A1
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PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING
FILE REFERENCE: 06508-030-US-03
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                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
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No. US20030170220A1
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                                                                         Sequence 21, Application US/09977406A
Publication No. US20030170220A1
GENERAL INFORMATION:
APPLICANT: PROCYON BIOPHARMA INC.
TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS
FILE REFERENCE: 06508-030-US-03
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CURRENT APPLICATION NUMBER: US/09/977,406A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: CA 2,321,256
PRIOR FILING DATE: 2000-10-16
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PRIOR FILING DATE: 2001-08-20
NUMBER OF CEC.
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TITLE OF INVENTION: PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
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ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
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                                                                                                                                                                                                                                                                              EWQTDNCETCTCYETE 16
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                                                                                                                                                                                                                                                                                                                                                       26.7%; Score 16; ilarity 100.0%; Pred. No. Conservative 0; Mismatc
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4.2e-11;
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PRIOR APPLICATION NUMBER: CA 2,355,334

PRIOR FILING DATE: 2001-08-20

NUMBER OF SEQ ID NOS: 92

SOFTWARE: PatentIn version 3.1

SEQ ID NO 21

LENGTH: 27

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE: OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)

US-09-977-406A-21

Query Match

Best Local Similarity 100.0%; Pred. No. 4.5e-11;

Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OTHER INFORMATION: Polypeptide derived from rHuPSP94 sequence (polypeptide analog)

US-09-977-406A-21

OUS-09-977-406A-21

Query Match

Best Local Similarity 100.0%; Pred. No. 4.5e-11;

Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OUS-09-977-406A-21

Search completed: May 4, 2005, 15:24:09

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Database :
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PIR 79:*
1: pir1:*
2: pir2:*
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Gapop 60.0 , Gapext 60.0
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| 4 4<br>5                              | 42<br>43                                 | 40<br>41                              | 39                | 38                 | 36<br>37 | 35                 | 34                 | 33                 | 32                | 31                | 30                 |
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| 385<br>390                            | 374<br>374                               | 363<br>366                            | 361               | 360                | 359      | 358                | 358                | 349                | 347               | 347               | 340                |
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| G83817<br>S46540                      | S41758<br>C97058                         | C55973<br>S66351                      | 150505            | T06592             | 151734   | I51735             | A55973             | I50369             | A38453            | AC0825            | B55973             |
| coproporphyrinogen methionine adenosy | heat shock protein<br>molecular chaperon | transcription fact methionine adenosy | gene wnt8 protein | methionine adenosy |          | transcription fact | transcription fact | transcription fact | anaerobic sulfite | anaerobic sulfite | transcription fact |

## ALIGNMENTS

| A; Molecule type: protein A; Residues: 21, 'X, ',23-34 <wei> A; Residues: 21, 'X, ',23-34 <wei> A; Residues: 21, 'X, ',23-34 <wei> A; Residues: 21, 'X, ',23-34 <wei 1089,="" 1991="" 247-249,="" a;="" accession:="" acta="" and="" b;="" biochim.="" biophys.="" chretien,="" dna<="" gene="" in="" m.="" m.;="" mbikay,="" molecule="" muid:91274357;="" number:="" organization="" pmid:2054385="" promoter="" prostatic="" protein="" psp(94):="" reference="" rolet,="" s.;="" s16237;="" s16238="" secretory="" sequence="" td="" title:="" type:=""><td>; PMID:6434350 ; annevik, G.; Lindstroem, C.; prostate-specific protein.; PMID:2205099</td><td>Biochem. Biophys. Res. Commun. 167, 1184-1190, 1990 A;Title: Cloning and nucleotide sequence analysis of the human beta-microseminoprotein g A;Reference number: A34567; MUID:90211299; pMID:2322265 A;Accession: A34567 A;Status: not compared with conceptual translation A;Molecule type: DNA A;Molecule type: DNA A;Residues: 1-114 <gre> A;Cross-references: UNIPROT:P08118; GB:M34376; NID:g514370; PIDN:AAA59871.1; PID:g514372 A;Cross-references: UNIPROT:P08118; GB:M34376; NID:g514370; PIDN:AAA59871.1; Dube DNA A;Reference number: A26451; MUID:87161231; PMID:3829888 A;Reference number: A26451; MUID:87161231; PMID:3829888</gre></td><td>RESULT 1 A34567 A34567 A54567 Beta-microseminoprotein precursor - human N;Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma pro C;Species: Homo sapiens (man) C;Date: 13-Jul-1990 #sequence_revision 13-Jul-1990 #text_change 09-Jul-2004 C;Accession: A34567; A26451; A29777; A30984; A60673; S16238; I52682</td></wei></wei></wei></wei> | ; PMID:6434350 ; annevik, G.; Lindstroem, C.; prostate-specific protein.; PMID:2205099 | Biochem. Biophys. Res. Commun. 167, 1184-1190, 1990 A;Title: Cloning and nucleotide sequence analysis of the human beta-microseminoprotein g A;Reference number: A34567; MUID:90211299; pMID:2322265 A;Accession: A34567 A;Status: not compared with conceptual translation A;Molecule type: DNA A;Molecule type: DNA A;Residues: 1-114 <gre> A;Cross-references: UNIPROT:P08118; GB:M34376; NID:g514370; PIDN:AAA59871.1; PID:g514372 A;Cross-references: UNIPROT:P08118; GB:M34376; NID:g514370; PIDN:AAA59871.1; Dube DNA A;Reference number: A26451; MUID:87161231; PMID:3829888 A;Reference number: A26451; MUID:87161231; PMID:3829888</gre> | RESULT 1 A34567 A34567 A54567 Beta-microseminoprotein precursor - human N;Alternate names: beta-inhibin; prostatic secretory protein; PSP-94; seminal plasma pro C;Species: Homo sapiens (man) C;Date: 13-Jul-1990 #sequence_revision 13-Jul-1990 #text_change 09-Jul-2004 C;Accession: A34567; A26451; A29777; A30984; A60673; S16238; I52682 |
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C;Accession: B95744
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S. Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creansen, N.F.; Hughes, B.; Huizar, L. Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Desulfovi)
C;Date: 03-Dec-1999 ;
C;Accession: JC7094
R;Saraiva, L.M.; da (
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A;Map position: 10g11.2-10g11.2
A;Introns: 1/3; 37/1; 72/2
C;Superfamily: seminal plasma protein
C;Keywords: semen
                                                                                                                                                                                                     unknown protein [imported] - Arabidopsis thaliana (;Species: Arabidopsis thaliana (mouse-ear cress) C;Pate: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                          RESULT 3
B96744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Saraiva, I.M.; da Costa, P.N.; LeGall, J.
Biochem. Biophys. Res. Commun. 262, 629-634, 1999
A;Title: Sequencing the gene encoding Desulfovibrio desulfuricans
A;Reference number: JC7094; MUID:99400423; PMID:10471375
A;Accession: JC7094
A;Molecule type: DNA
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-326 <SAR>
A;Cross-references: UNIPROT:Q9RN68; GB:AF186393; NID:g5924394;
A;Experimental source: ATCC 27774
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C;Keywords: electron transfer; heme; heme binding
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C;Species: Desulfovibrio desulfuricans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
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A;Cross-references: GB:S67815; NID:g460568; PIDN:AAB29732.1; PID:g460569
C;Comment: This protein is a component of seminal plasma as well as secretory fluids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:X57928; NID:g35760; PIDN:CAA41002.1; PID:g825707 A;Note: the authors translated the codon ACT for residue 54 as Trp R;Liu, A.Y.; Bradner, R.C.; Vessella, R.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JC7094
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Liu, A.Y.; Bradner, R.C
Cancer Lett. 74, 91-99, 19
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; Pred. No. 1.1e-:
                                                                                                                                       C.J.; Federspiel, N.A.; Kaul, S.; White, (Conway, A.B.; Conway, A.R.; Creasy, T.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                          Khaykin, E.; Kim, C.
Maiti, R.; Marziali,
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                 C;Superfamily: autotransporter subtilisin-like proteas C;Keywords: hydrolase; serine proteinase F;1-27/Domain: signal sequence #status predicted <SIG>F;28-408/Product: serine proteinase #status predicted
                                                                                                                                                                                 J. Bacteriol. 166, 937-944, 1986
A;Title: Specific excretion of Serratia marcescens protease
A;Reference number: A29840; MUID:86223815; PMID:3011754
A;Accession: A29840
                                                                                  A;Cross-references: UNIPROT:P09489; GB:M13469; NID:g152857; PIDN:AAA26572.1; PID:g152858 C;Superfamily: autotransporter subtilisin-like protease precursor; subtilisin homology
                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-1045 < YAN>
                                                                                                                                                                                                                                                                                                                        C;Species: Serratia marcescens
C;Date: 19-May-1989 #sequence_revision 19-May-1989
                                                                                                                                                                                                                                                                                R; Yanagida, N.; Uozumi, T.; Beppu, T.
                                                                                                                                                                                                                                                                                                            C; Accession: A29840
                                                                                                                                                                                                                                                                                                                                                                                serine proteinase (EC 3.4.21.-) precursor - Serratia marcescens (strain IFO-3046)
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A;Introns: 46/1; 96/1; 124/3; 165/1; 223/3; 282/3; 340/2; 381/1; 485/3; 516/2; 549/1; 624
C;Superfamily: yeast 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase; 1-phosphat osphodiesterase domain Y homology
F;338-487/Domain: 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase domain X homo
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A;Accession: B95744
                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Wohldmann, P.; Beck, C.
R;Wohldmann, P.; Beck, C.
submitted to the EMBL Data Library, September 1997
submitted to the sequence of C. elegans cosmid K10F12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Caenorhabditis elegans
C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 28-Jul-2000
C;Accession: T3274-1
                                                                                                                                                                                                                                             A; Map position:
                                                                                                                                                                                                                                                                  A;Gene: CESP:K10F12.3
                                                                                                                                                                                                                                                                                                            A; Experimental source:
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                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
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C;Genetics:
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A;Molecule type: DNA
A;Residues: 1-601 <STO>
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ce: strain Bristol N2; clone K10F12
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methionine adenosyltransferase (EC 2.5.1.6) - chickpea N;Alternate names: S-adenosylmethionine synthetase C;Species: Cicer arietinum (chickpea, garbanzo) C;Date: 08-Jul-1995 #sequence_revision 21-Jul-1995 #tex C;Accession: S53116 R;Cervantes, E. Submitted to the EMBL Data Library, March 1995
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A;Title: A novel insect defensin mediates the inducible antibacterial activity in A;Reference number: S27242; MUID:93049356; PMID:1425705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Aeschna cyanea (blue darner)
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
C;Accession: S27242
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A;Title: Purification and characterization of a scorpion defensin, a 4kDa antibacteria A;Reference number: JN0613; MUID:93326112; PMID:8333834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               defensin 4K - scorpion (Leiurus quinquestriatus)
N;Alternate names: antibacterial 4K peptide
C;Species: Leiurus quinquestriatus hebraeus
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 09-Jul-2004
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F;409-1045/Domain: carboxyl-terminal proper
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Molecule type: protein
Residues: 1-38 <BUL>
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tive 0; Mismatches
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                A; Molecule type: mRNA
A; Residues: 1-114 < NOL>
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A;Cross-references: UNIPROT:P25142; EMBL:X57932; NID:g38094; PIDN:CAA41003.1; PID:g82915; A;Note: the authors translated the codon ACT for residue 54 as Trp R;Nolet. S., St-Louis, D.; Mbikay, M.; Chretien, M. Genomics 9, 775-777, 1991
A;Title: Rapid evolution of prostatic protein PSP-94 suggested by sequence divergence bet A;Reference number: A54663; MUID:91244325; PMID:2037304
A;Accession: A54663
                                                                                                                                                                                                        R;Nolet, S.; Mbikay, M.; Chretien, M.
Biochim. Biophys. Acta 1089, 247-249, 1991
A;Title: Prostatic secretory protein PSP(94): gene organization
A;Reference number: S16237; MUID:91274357; PMID:2054385
                                                                                                                                                                                                                                                                                                                   N;Alternate names: prostatic secretory protein PSP94 C;Species: Macaca mulatta (rhesus macaque) C;Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Gene: is1-2a (Superfamily: transcription factor is1-1; homeobox homology; LIM metal-binding C;Keywords: alternative splicing; DNA binding; homeobox; nucleus; transcription F;3-56/Domain: LIM metal-binding repeat homology <LIM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             transcription factor isl-2a (clone S3) - chinook salmon N;Alternate names: insulin enhancer-binding protein isl-2a; islet-2a protein C;Species: Oncorhynchus tschawytscha (chinook salmon) C;Date: 14-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 15-Oct-1999 C;Accession: S52089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Reference number: S52089; MUID:95178560; PMID:7873614
A;Accession: S52089
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A;Experimental source: clone S3
C;Genetics:
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Biochim. Biophys. Acta 1260, 349-354, 1995
A;Title: Several splicing variants of isl-1
                                                                                                                                                  A;Molecule type: DNA
A;Residues: 1-114 <NO2>
                                                                                                                                                                                          A; Accession: S16237
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C;Keywords: S-adenosylmethionine;
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A; Residues: 1-83 <CER>
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tive 0; Mismatches
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references: GB:M92161; NID:g342280; PIDN:AAA36903.1; PID:g342281

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R;Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, K.A.; Dodson; Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, E.F. Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald, L. Nature 390, 364-370, 1997

A;Authors: Utterback, T.; Cotton; M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes, S. Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome senger, J.C.
A;Reference number: A69250; MUID:98049343; PMID:9389475
A;Accession: E69429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     conserved hypothetical protein AF1438 - Archaeoglobus fulgidus
C;Species: Archaeoglobus fulgidus
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Accession: E69429
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E69429
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A;Residues: 1-127 <KLE>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Introns: 1/3; 37/1; 72/2
C;Superfamily: seminal plasma protein
F;1-20/Domain: signal sequence #status predicted
                                                                                                                                                                                                                          A; Cross-references:
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A;Note: the nucleotide sequence was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Species: Mycoplasma pneumoniae A;Variety: ATCC 29342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical protein H10_orf119 - Mycoplasma pneumoniae (strain ATCC 29342)
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b. 47;
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C;Accession: C86241

R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S. Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creansen, N.F.; Hughes, B.; Huizar, L. Nature 408, 816-820, 2000

A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
                                                                                                                                                                    protein T16B5.9 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
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toxin-activating protein, probable NMB1210 [imported] - Neisseria meningitidis C,Species: Neisseria meningitidis C,Species: Neisseria meningitidis C,Species: Neisseria meningitidis C,Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004 C,Accession: F81108
R,Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; E Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougher ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, J.; A,Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuol A,Tuther Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuol A,Title: Complete genome sequence of Neisseria meningitidis serogroup B strain; A,Reference number: A81000; MUID:20175755; PMID:10710307
                                                                                                                                                                                                                          A;Gene: NMB1210
C;Superfamily:
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F81108
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RESULT 15
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A;Experimental source: serogroup B,
                                                                                                                                                                                                                                                                                                                                             A;Molecule type: DNA
A;Residues: 1-155 <TET>
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A;Accession: F81108
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A;Title: The complete genome sequence of Escherichia coli A;Reference number: A64720; MUID:97426617; PMID:9278503 A;Accession: G65019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Accession: G65019
R;Blattner, F.R.; Plunkett
A.; Rose, D.J.; Mau, B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Escherichia coli
C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004
C;Accession: G65019
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C;Species: Escherichia coli
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Matches 5
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Conservative 0;
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Shao, Y.
                                                                                                                                            8.3%; Score 5; DB 100.0%; Pred. No. 59 ive 0; Mismatches
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Pred. No.
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Dougherty, B
Pizza, M.
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Ver

.; Kaul, S.; White, A.R.; Creasy, T.H.;

O.; Alonso, Dewar, K.;

Khaykin, E.; Maiti, R.; M

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A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, Rer, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A;Reference number: A86141; MUID:21016719; PMID:11130712

A;Accession: C86241

A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-167 <5TO>
A;Cross-references: UNIPROT:Q9SAC5; GB:AE005172; NID:g4874271; PIDN:AAD31336.1; GSPDB:GN C;Genetics:
A;Gene: T1685.9
A;Map position: 1

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Cancer

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RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max. S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max. S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Biatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Ceneration and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.",
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secretory protein of human seminal plasma.";
Biochem. Biophys. Res. Commun. 180:356-359(1991)
                                                                                                                                                                                                                                                                                                                                                    MEDLINE=85004133; PubMed=6434350; DOI=10.1016/0014-5793(84)80766-8; Seidah N.G., Arbatti N.J., Rochemont J., Sheth A.R., Chretien M.; "Complete amino acid sequence of human seminal plasma beta-inhibin. Prediction of post Gln-Arg cleavage as a maturation site."; FEBS Lett. 175:349-355(1984).
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                                 TISSUE=Semen;
MEDLINE=95401076;
                                                                                       SEQUENCE OF 21-41,
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Xuan J.W., Chin J.L.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-85199974; PubMed-3995056; DOI=10.1016/0167-4838(85)90200-6; Akiyama K., Yoshioka Y., Schmid K., Offner G.D., Troxler R.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF
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28964; PubMed=1930232;
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.L., Guo Y., Cha
                              PubMed=7671139;
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                                                                                          TISSUE SPECIFICITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ce of human beta-microseminoprotein."; 829:288-294(1985).
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Ueyama
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      DOI=10.1016/1357-2725(95)00021-G;
yama H., Eimoto T., Sasaki M.;
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DOI=10.1002/1615-9861(200201)2:1<112::AID-PROT112>3.3.CO;2-E;

DOI=10.1002/1615-9861 Tagesson C., Lindahl M.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                deodenum, colon, trachea, lung, salivary glands and tube. Sp94 is expressed in lung and breast, wherea found in kidney and bladder.

MISCELLANEOUS: Specific receptors for this protein spermatozoa and in the prostate.

SIMILARITY: Belongs to the beta-microseminoprotein CAUTION: Was originally thought to inhibit the secreptuitary cells.
                                                                                                                                                                                                                                                      GO:0005634; C:nucleus;
erPro; IPR008735; PSP94.
                                                                                                                                                                                                                                                                                            GO:0005615; C:extracellular
                                                                                                                                                                                                                                                                                                                                                                       A34567;
G01730;
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M34374; AA
M34375; AA
M15885; AA
X57928; CA
X57929; CA
X57930; CA
X57931; CA
X57931; AA
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an email to license@isb-sib.ch).
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Beta-microseminoprotein.
By similarity.
By similarity.
Or C-60 with C-70 (By similarity).
Or C-62 with C-69 (By similarity).
Or C-62 with SEWOTONCETCTOYETEISCCTLVSTPV
-> MFLHLWYDTYTTAKESSRRRTASISWWRRRTQKRPVLS
VNG (in isoform PSP57).
/FTId=VSP_003275.
                                                                                                                                                                                                            protein sequencing; Polymorphism; Signal.
                                                                                                                                                                                                                                                                                            space;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Molecular cloning and gene expression analysis of PSP94 secretory protein of 94 amino acids) in primates."; DNA Cell Biol. 16:627-638(1997).
-I- SUBCELLULAR LOCATION: Secreted. Sperm surface (By sin
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MEDLINE=97316893; PubMed=9174167;
Xuan J.W., Wu D., Guo Y., Garde S., Shum D.T.,
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Papio anubis (Olive baboon).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Beta-microseminoprotein precursor (Prostate secreted seminal plasma protein) (Prostate secretory protein PSP94) (PSP-94).
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01-NOV-1997 (Rel. 35,
05-JUL-2004 (Rel. 44,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: Belongs to the beta-microseminoprotein family.
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Beta-microseminoprotein.
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/FTId=VSP_003276.
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Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H., Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno I., Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F. Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H., Imotani K., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C., Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno I. Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T. Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino Muramatsu M., Hayashizaki Y.,
                                                                                                                                                                                                                                                              MEDLINE=20530913; PubMed=1107686; DOI=10.1101/gr.152600; Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsuncto H., Sakaguchi S., Ikegami T., Kashiwagi K., Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.; "RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer."; Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE=Pancreas;
STRAIN-C57BL/6J; TISSUE=Pancreas;
MEDLINE=2049374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
"Normalization and subtraction of cap-trapper-selected cDNAs
prepare full-length cDNA libraries for rapid discovery of new
Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The FANTOM Consortium, the RIKEN Genome Exploration Research Group "Analysis of the mouse transcriptome based 60,770 full-length cDNAs.", Nature 420:563-573(2002).
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MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
Carninci P., Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 28, Last annotation update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Mus musculus 10 day old male pancreas cDNA, RIKEN full-length
library, clone:1810020E01 product:hypothetical protein, full isequence (RIKEN cDNA 1810020E01).
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SEQUENCE
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MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; 
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Name=1810020E01Rik;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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FROM N.A.
                             (JUL-2000)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of a
                             the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA cloning.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     o Phase I & II
on functional
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; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                             Carninci P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Team;
annotation
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                                                                                                                                                                     Hori F.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genes.";
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RM MEDLINE=22388257; pubMed=12477932; DOI=10.1073/pnas.242603899;

AR Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

AR Klausner R.D., Collins F.S., Wagner L., Shennen C.M., Schuler G.D.,

RA Alteschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh P.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh P.,

RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hullahy S.J.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hullyk S.W.,

RA Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RA Krzywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,

Pan Holland A., Young A.C., Shevin J.E.,

RA Krzywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,
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Best Local S
Matches 6
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Q7V5F4;
01-OCT-2003
01-OCT-2003
01-OCT-2003
                                            Complete
SEQUENCE
                                                                                                                                                                                               Rocap G., Larimer F.W., Lamerdin J.E., Malfatti S., Chain P., Ahlgren N.A., Arellano A., Coleman M., Hauser L., Hess W.R., Johnson Z.I., Land M.L., Lindell D., Post A.F., Regala W., Shah Shaw S.L., Steglich C., Sullivan M.B., Ting C.S., Tolonen A., Webb E.A., Zinser E.R., Chisholm S.W.;
"Genome divergence in two pro-th-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        prochloroconic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AK007559; BAB25107.1; -.
EMBL; BC023171; AAH23171.1; -.
MGD; MGI:1913521; 1810020E01Rik.
GO; GO:0016021; C:integral to membrane;
InterPro; IPR009801; DUF1370.
Pfam; PF07114; DUF1370; 1.
                                                                                                                                                niche differentiation.";
Nature 424:1042-1047(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Prochlorococcus marinus (strain MIT 9313).
Bacteria; Cyanobacteria; Prochlorales; Prochlorococcaceae;
                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Prochlorococcus.
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STRAIN=FVB/N; TISSUE=Mammary tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Generation and initial analysis of more than 15,000 and mouse cDNA sequences.";
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                                                                                         InterPro; IPR009058; Wing_hlx_DNA_bnd
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mouse cDNA sequences.";
c. Natl. Acad. Sci. U.S.
                                                                                                                       BX572099; CAE21782.1;
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196 AA; 2
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(TrEMBLrel. 25, Last sequence update)
(TrEMBLrel. 25, Last annotation updat
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                                         E663AA68A216D0C5 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family.
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16-OCT-2001
16-OCT-2001
25-OCT-2004
                                                                                                                                                 use by non-profit institutions as long as its cont modified and this statement is not removed. Usage by entities requires a license agreement (See http://www.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matias P.M., Coelho R., Pereira I.A.C., Coelho A.V., Thompso: Sieker L., LeGall J., Carrondo M.A.;
"The primary and three-dimensional structures of a nine-haem cytochrome c from Desulfovibrio desulfuricans ATCC 27774 rev.member of the Hmc family.";
Structure 7:119-130(1999).
  EMBL; AF186393; AAD56586.1;
PIR; JC7094; JC7094.
PDB; 19HC; X-ray; A/B=31-32;
PDB; 10FW; X-ray; A/B=31-326
                                                                                                                               or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Nine-haem cytochrome c from Desulfovibrio desulfuricans ATCC 27774: primary sequence determination, crystallographic refinement at 1.8 A primary sequence determination, crystallographic refinement at 1.8 A primary sequence determination, crystallographic refinement at 1.8 A primary sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=20022508; PubMed=10555582; Matias P.M., Saraiva L.M., Soares
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. STRAIN=ATCC 27774; MEDLINE=99400423;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=99148120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A., AND STRAIN=ATCC 27774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Saraiva L.M., da Costa P.N., LeGall J., Sequencing the gene encoding Desulfovibrio desulfuricans ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteria; Proteobacteria; Deltaprot
Desulfovibrionaceae; Desulfovibrio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Desultovibrio desulturicans
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Biol. Inorg. Chem. 4:478-494(1999).
                                                                                                                                                                                                                                                                                                                        sulfate.
SUBUNIT: Monomer.
SUBCELLULAR LOCATION: Periplasmic.
SUMAIN: Arranged into two tetraheme clusters and to be located asymmetrically between the two regions.
PTM: Binds 9 heme groups per subunit.
SIMILARITY: Contains 9 cytochrome c domains.
                                                                                                                                                                                                         European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: May form part of a transmembrane redox which electrons are transferred to the cytoplasm
                                                                                                                                                                                                                                                      SWISS-PROT entry is copyright. It is produced through sen the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DESDE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PubMed=10368280; DOI=10.1016/S0969-2126(99)80019-7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PubMed=10471375; DOI=10.1006/bbrc.1999.1238;
Costa P.N., LeGall J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of its interaction with the tetrahaem cytochrome
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Commun. 262:629-634(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS)
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27;
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                                                                                                                                                                                                                                                                                                                                                                                                             clusters and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Coelho A.V., LeGall J
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InterPro; IPRO02322; Cyt CIII.
InterPro; IPRO011031; Multihaem cyt.
Pfam; PF02085; Cytochrom_CIII; 1.
  A/B=31-326.
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EMBL; AL935258; CAD6454
HSSP; P14900; 2UAG.
HAMAP; MF_00639; -; 1.
InterPro; IPR004101; Mu
InterPro; IPR00713; Mu
InterPro; IPR005762; Mu
                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MURD_LACPL STANDARD; PRT; 459 AA. 080V80; 29-WAR-2004 (Rel. 43, Created) 29-MAR-2004 (Rel. 43, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) UDP-N-acetylmuramoylalanine--D-glutamate ligase acetylmuramoyl-L-alanyl-D-glutamate synthetase)
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                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN=NCIMB 8826 / WCFS1;
STRAIN=NCIMB 8826 / WCFS1;
MEDLINE=22480296; PubMed=12566566; DOI=10.1073/pnas.0337704100;
MEDLINE=22480296; PubMed=12566566; DOI=10.1073/pnas.0337704100;
                                                                                              entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                     "Complete genome sequence of Lactobacillus plantarum WCFS1.";
Proc. Natl. Acad. Sci. U.S.A. 100:1990-1995(2003).
-!- FUNCTION: Cell wall formation. Catalyzes the addition of glutamate to the nucleotide precursor UDP-N-acetylmuramoyl-L-alanine (UMA)
(By similarity).
-!- CATALYTIC ACTIVITY: ATP + UDP-N-acetylmuramoyl-L-alanine + glutamate = ADP + phosphate + UDP-N-acetylmuramoyl-L-alanyl-D-glutamate.
-!- PATHWAY: Peptidoglycan biosynthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lactobacillus.
NCBI_TaxID=1590;
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(D-glutamic acid
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Q9C7H2;
01-JUN-2001
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                       Cheuk R., Chen H., Kim C.J., Shinn P., Bowser L., Carninci P., Chan M.M., Chang C.H., Dale J.M., Haysshizaki Y., Hsuan V.W., Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam Lee J.M., Lin J., Miranda M., Narusaka M., Nguyen M., Onodera C., Palm C.J., Quach H.L., Sakurai T., Satou M., Seki M., Southwick Tang C.C., Toriumi M., Wong C., Wu H.C., Yamada K., Yu G., Yuan Shinozaki K., Davis R.W., Theologis A., Ecker J.R.; Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.

EMBL; AC069273; AAK56263.1; -.

EMBL; BT002712; AAK16263.1; -.

EMBL; BT002712; AAK1628.1; -.
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Pfam;
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                                                                                                                                                   GO; GO:0003824; F:catalytic activity; IEA.
GO; GO:0005506; F:iron ion binding; IEA.
InterPro; IPR006638; Elp3/MiaB/NifB.
InterPro; IPR006466; MiaB_like_B.
InterPro; IPR007197; Radical_SAM.
InterPro; IPR007197; TRAM.
InterPro; IPR002792; TRAM.
InterPro; IPR005839; UPF0004.
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Lin X., Kaul S., Town C.D.,
Maiti R., Ronning C.M., Koo
Barnstead M.E., Bowman C.L.
Submitted (JAN-2001) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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Pfam; PF02875; Mur_ligase_C; 1.
ATP-binding; Cell division; Cell
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NP_BIND 11
                               rigrfams;
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                                                                               PF04055; Radical SAM; 1. PF01938; TRAM; 1. PF00919; UPF0004; 1.
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(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 27, Last annotation update)
protein F28P5.4 (Atlg72090/F28P5_4).
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Koo H., Fujii C.Y., Utt
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the EMBL/GenBank/DDBJ o
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, Nierman W.C., Fras
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Shinozaki K.,
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PROSITE; PS01
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            Zymogen.
SIGNAL
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PRINTS; PR00723; SUBTILISIN.
TIGRPAMS; TIGRO1414; autotrans barl;
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PROSITE; PS00137; SUBTILASE HIS; 1.
PROSITE; PS00138; SUBTILASE SER; 1.
)irect protein samman.
                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for corentities requires a license agreement (See http://www.isb-sib.ch/ar or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A., AND SEQUENCE STRAIN-IFO 3046;
MEDLINE-86223815; PubMed-3011754;
MEDLINE-86223815; PubMed-3011754;
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                                                                                                         Pfam; PF03797; Autotransporter; 1.
Pfam; PF00082; Peptidase S8; 1.
PIRSF; PIRSF001164; Autotr sbt-lik
                                                                                                                                                                                                                                                                                                                                                                                             of Serratia marcescens serine Escherichia coli.";
                                                                                                                                                                                                                                                                                                                                                                                                       Shikata S., Shimada K., Kataoka H., Hornou
"Detection of large COOH-terminal domains
of Serratia marcescens serine protease in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yanagida N., Uozumi T., Beppu T.;
"Specific excretion of Serratia marcescens
membrane of Escherichia coli.";
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25-OCT-2004
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                                   Direct
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InterPro; IPR006315; Autotransporter.
InterPro; IPR000209; Pept 88 553.
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MEROPS; S08.094;
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                                                                                                                                                                                                                                 EMBL; M13469; AAA26572.1;
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PS01278; UPF0004;
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Q8IA76;
01-MAR-2003
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Wohldmann P., Beck C.;
"The sequence of C. elegans
"The sequence of C. the
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Wormbase; WBGene00004045; pll-1.

wormbep; K10Fl2.3b; CE31037.

GO; GO:0004435; F:phosphoinositide phospholipase C
GO; GO:0007242; P:intracellular signaling cascade;
GO; GO:000629; P:lipid metabolism; IEA.

InterPro; IPR009073; C2.

InterPro; IPR009073; C2.

InterPro; IPR009049; PH.
                                                                                                                                                                         WormBase Consortium;
Submitted (SEP-2004) to the EMI
Submitted (COntains 1 C2 of EMBL; AP025462; AAN72423.1; -.
HSSP; P10688; 1DJH.
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Eukaryota; Metazoa; Nematoda; Chromadorea;
Rhabditidae; Peloderinae; Caenorhabditis.
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Name=pll-1; ORFNames=K10F12.3;
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01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
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5. 1.2e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       databases.
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(By similarity).
(By similarity).
(C CRC64;
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                                                                                     activity; IEA.
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RESULT 10
Q8IA75
ID Q8IA7
AC Q8IA7
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProDom; PD001202; PI_PLC_Y;
SMART; SM00239; C2; 1.
SMART; SM00239; PH; 1.
SMART; SM00148; PLCXC; 1.
SMART; SM00149; PLCYC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR001192; PI_PLC.
InterPro; IPR000909; PI_PLC_X
InterPro; IPR001711; PI_PLC_Y
Pfam; PR00168; C2; 1.
Pfam; PF00388; PI_PLC_X; 1.
Pfam; PF00387; PI_PLC_Y; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Q8IA75
Q8IA75;
01-MAR-2003
01-MAR-2003
SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                          SEQUENCE FROM N.A.
STRAIN=Bristol N2;
Wilson R.;
                                                                                                                                                                                                                                                                                                                                                          Caemorhabditis elegans.
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation updat
Phospholipase c like protein 1, isoform a.
Name=pll-1; ORFNames=K10F12.3;
                                  Submitted
                                                                                                           SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                            Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS50004; C2 DOMAIN 2; 1.
PROSITE; PS50007; PIPLC X DOMAIN;
PROSITE; PS50008; PIPLC Y DOMAIN;
                                                                                       Submitted
                                                                                                   Wilson R.;
                                                                                                                                                                                                 Wohldmann P., Beck C.;
"The sequence of C. elegans
Submitted (SEP-1997) to the
                                                                                                                                                                                                                                                                  WormBase Consortium;
"Genome sequence of the nematode C. elegans: a platform for investigating biology. The C. elegans Sequencing Consortium Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                              STRAIN=Bristol N2;
MEDLINE=99069613; 1
                                                                                                                                                                  STRAIN=Bristol N2;
                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                   STRAIN=Bristol N2;
                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=6239;
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                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 6; Conserv
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                                  (DEC-2003)
                                                                                       (NOV-2003)
                                                                                                                                             (DEC-2002)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                               PubMed=9851916;
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pI_PLC.
pI_PLC_X.
pI_PLC_Y.
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EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 6; Pred. No.
                                  EMBL/GenBank/DDBJ
                                                                                                                                             EMBL/GenBank/DDBJ
                                                                                       EMBL/GenBank/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9BF7CFCFFD7EC221 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2; Les
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                                  databases
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                                                                                                                                                                                                                                                                             Consortium.";
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Q7QZU9
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Best Local &
                                                                               preliminary data.

EMBL; AACB01000040; EAA40566.1; -.

HSSP; P3555; IEMN

GO; GO:0005198; F:structural molecule ac
InterPro; IPR000742; EGF 2.
InterPro; IPR0065209; EGF—like.
InterPro; IPR0065127; Giardia VSP.
InterPro; IPR009030; Grow_fac_recept.
InterPro; IPR0002049; Laminin_EGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PRO0360; C2DOMAIN.
PRINTS; PRO0390; PHPHLIPASEC.
PRODOM; PD001202; PI PLC Y; 1.
SMART; SM00239; C2; T.
SMART; SM00239; PH; 1.
SMART; SM00148; PLCXC; 1.
SMART; SM00149; PLCXC; 1.
SMART; SM00149; PLCXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q7QZU9;
01-MAR-2004
01-MAR-2004
                                                                                                                                                                                                                                                                                         Wormbase; WBGene00004045; pll-1.

Wormbep; K10F12.3a; CE31036.

GO; GO:0004435; P:phospholiositide phospholipase C activity; IEA.

GO; GO:0007242; P:intracellular signaling cascade; IEA.

GO; GO:000629; P:lipid metabolism; IEA.

InterPro; IPR0010008; C2.

InterPro; IPR001973; C2 CALB.

InterPro; IPR001193; PH.

InterPro; IPR011036; PH.

InterPro; IPR011036; PH.

InterPro; IPR01103; PH.

InterPro; IPR001192; PI_PLC.

InterPro; IPR001090; PI_PLC_X.

InterPro; IPR0010711; PI_PLC_X.

InterPro; IPR0010711; PI_PLC_X.

InterPro; IPR0010711; PI_PLC_X.
                                                                     Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GLP_609_15416_20263.
Giardia lamblia ATCC 50803.
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01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PSS0004; C2 DOMAIN 2; 1.
PROSITE; PSS0007; PIPLC X DOMAIN; 1.
PROSITE; PSS0008; PIPLC Y DOMAIN; 1.
SEQUENCE 1075 AA; 121111 MM; 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00168; C2; 1.
Pfam; PF00388; PI-PLC-X; 1.
Pfam; PF00387; PI-PLC-Y; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Diplomo
NCBI_TaxID=184922;
                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=WB C6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q7QZU9
                                                                                                                                                                                                                                                                                                                                                                                                                  Morrison H.G., McArthur A.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSSP; P10688; 1DJH.
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L; AF025462; AAN72422.1; -.
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                                                PF00008;
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                                                                        EGF;
                                           Laminin_EGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hexamitidae;
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; Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                  Adam R.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
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                                                                                                                                                                                                       activity; IEA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Giardiinae; Giardia
                                                                                                                                                                                                                                                                                                                                                                                                                  Aley S.B.,
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"The genome ...
J. Virol. 74:3815-3851(20)
J. AF196100; AAF44466.1; -..
EMBL; AF196100; POXVIRUS B22R.
InterPro; IPR007490; POXVIRUS B22R; 1.
R Pfam; PF04395; POXVIRUS B22R; 1.
R Pfam; PF04395; POXVIRUS B22R; 1.
2017156 MW; 242:
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Best Local S
Matches 6
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Best Local S
Matches 6
                                                                                                                                                                          MEDLINE=20193820; PubMed=10729156; DOI=10.1128/JVI.74.8.3815-3831.2000; Afonso C.L., Tulman B.R., Lu Z., Zsa"The genome of fowlpox virus."; J. Virol. 74:3815-3831(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-2000 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
ORF FPV122 variola B22R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q70H34;
05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
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PROSITE;
PROSITE;
PROSITE;
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                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10261;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fowlpox virus (FPV).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF04395; Poxvirus_B22R; 1.
SEQUENCE 1870 AA; 211756 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VARV Bangladesh B22R orthologue.
Name=fp9.122;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Avipoxvirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Viruses; dsDNA viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Avipoxvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fowlpox virus (isolate HP-438[Munich]).
Viruses; dsDNA viruses, no RNA stage; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q70H34
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PS01186; EGF 2; 12.
PS50026; EGF 3; 2.
PS01248; LAMĪNIN TYPE EGF; 4.
PS01248; LAMĪNIN TYPE BBE3D60D18B4F27 CRC64;
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                                                                                                                                                       MEDIJNE-21476011; PubMed=11591858;
He Y., Jones K.J., Vignier N., Morgan G
Estournet-Mathiaud B., Hori H., Mizuta
                                                                                                                                                                                                                                                                                                                                                                                        Marzluf G.A., Amato A.A., Mendell J.T., Chen L., Feng B., Sahenk Z., "Novel single base polymorphisms and rare sequence variants in laminin 2-chain coding region detected by RNA/SSCP analysis."; Hum. Mutat. 13:174-174(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhang X., Vuolteenaho R., Tryggvason K.;
"Structure of the human laminin alpha2-chain
affected in congenital muscular dystrophy.";
J. Biol. Chem. 271:27664-27669(1996).
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                                                                                                                                                                                                                                                                                                             Panicker S.G.,
Marzluf G.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Merosin, a tissue-specific basement like protein.";
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\mato A.A., Mendell J.R.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Clinical and molecular study in partial laminin alpha-2 (LAMA2) Hum. Mutat. 21:103-111(2003).
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7226653 CAA81394 1; U66733 AAB18388 1; U66736 AAB18388 1; U66736 AAB18388 1; U66736 AAB18388 1; U66736 AAB18388 1; U66737 AAB18388 1; U66742 AAB18388 1; U66742 AAB18388 1; U66742 AAB18388 1; U66742 AAB18388 1; U66746 AAB18388 1; U66747 AAB18388 1; U66756 AAB18388 1; U66757 AAB1838 1; U66757 AAB18388 1; U66757 AAB18388 1; U66757 AAB18388 1; U66757 AAB1838 1; U66757 AAB1838
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U66763; U66764;

AAB18388 AAB18388 AAB18388

EMBL; EMBL; EMBL; EMBL; EMBL; EMBL; EMBL;

U66773;

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AAB18388. AAB18388.

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Query Match
Best Local S
Matches 6
                                                                                                 PRINTS; PRODO11; EGFLAWININ.

PRODOM; PD003031; Laminin B; 2.

PROSITE; PS00022; EGF 1; 11.

PROSITE; PS01186; EGF 2; 3.

PROSITE; PS01248; LAMININ TYPE EGF; 14.

Basement membrane; Cell adhesion; Coiled coil;

Congenital muscular dystrophy; Direct protein;
                                                                                                                                                                                                                                                                Genew;
MIM; 15
MIM; 60
                                                                                                                                                                                                         InterPro;
InterPro;
                                                                                                                                                                                                                                         GO; GO:0005604;
GO; GO:0005198;
GO; GO:0007517;
                                                                                                                                                                                                                                                                                                     EMBL; U66793; AAB18388.1;
EMBL; U66794; AAB18388.1;
EMBL; U66795; AAB18388.1;
EMBL; M59832; AAA63215.1;
                                                                                                                                                                                                                                                                                       PIR; PX0082; MMHUMH.
HSSP; Q60675; 1DYK.
                                                                                                                                                          InterPro;
                                                                                                                                                                         InterPro;
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                                                                                                                                                                                                        GO:0005604; C:basement membrane; TAS.
GO:0005198; F:structural molecule activity; TAS.
GO:0007517; F:muscle development; TAS.
erPro; IPR008985; ConA like_lec_gl.
erPro; IPR008979; EGF like.
erPro; IPR008979; GGI bind like.
erPro; IPR00930; GGrw_fac_recept.
   6; Conserv
                                                                                                                                                                                                                                                                                HGNC:6482; LAMA2.
                                                                                                                                         IPR010307; Laminin_II
IPR008211; Laminin_N.
IPR003129; TSP_N.
0052; Laminin_B; 2.
     Conservative
                                                                                                                ; Laminin_B; 2.
; Laminin_EGF; 14.
; Laminin_G; 5.
; Laminin_I; 1.
                                                                                                 Laminin
                                                                                                          Laminin
                                                                                                                                                               Grow_fac_recept.
Laminin_B.
Laminin_BEF.
Laminin_G.
Laminin_I.
Laminin_II.
           10.0%;
                                                                                                  N; 1.
J.08;
0;
  Score 6; DB 1; Pred. No. 3.2
DB 1; L., No. 3.2e+02; 0;
                                  sequencing;
                  Length 3110;
   Indels
   0;
   Gaps
   0
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RESULT 15
DEF4 ANDAU
ID DEF4 ANDAU
ID DEF4 ANDAU
ID P56686
DT 15-JUL
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Matches 5
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                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF01097; Defensin 2; 1.
PROSITE; PS00425; ARTHROPOD DEFENSINS; 1.
Antibiotic; Defensin; Direct protein sequ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ehret-Sabatier L., Loew D., Goyffon M., Fehlbaum P., Hoffmann J.A., van Dorsselaer A., Bulet P., "Characterization of novel cysteine-rich antimicrobial peptides from scorpion blood.", J. Biol. Chem. 271:29537-29544 (1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE, CHARLES TISSUE-Hemolymph;
STRAIN-Hector; TISSUE-Hemolymph;
MEDLINE-97094646; PubMed-8939880; DOI-10.1074/jbc.271.47.29537;
MEDLINE-97094666; PubMed-8939880; PubMed-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Androctonus australis (Sahara scorpion).
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Buthoidea; Buthidae; Androctonus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR001542; Defensin_anpod.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HSSP; P80571; 1FJN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE, CHARACTERIZATION, AND MASS SPECTROMETRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=6858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     kDa defensin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: Active against Gram-positive bacteria.
SUBSELLULAR LOCATION: Secreted.
MASS SPECTROMETRY: MW=4206.8; METHOD=Electrospray; RANGE=1-37;
NOTE=Ref.1.
SIMILARITY: Belongs to the arthropod defensin family. Subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               389
          32
                                                                                                                                                                                          Similarity
5; Conserv
TCTCY 36
                                                                                               тстсу 13
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                                                                                                                                                                                                                                                                                                                                                                                              37
                                                                                                                                                                                               8.3%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                            11
15
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                                                                                                                                                                                                                                                                                                                                                                                         4212 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the arthropod defensin family. Subfamily
                                                                                                                                                                                               0;
                                                                                                                                                                                                                                            Score 5; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                    By similarity.
By similarity.
By similarity.
AB1363ECE3FB84C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein sequencing
                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                            DB 1;
5. 76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  update)
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                                                                                                                                                                                                                                                                                     Length 37;
                                                                                                                                                                                                                                                                                                                                                                                         CRC64;
                                                                                                                                                                                               Indels
                                                                                                                                                                                               Gaps
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EMBL; EMBL; EMBL; EMBL; EMBL; EMBL; EMBL; EMBL; EMBL; EMBL;

0; AAB18388. 1; AAB18388.

AAB18388.1;

AAB18388.1;

EMBL;

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